

» SAMSUNG » HTC » NEXUS **FREE** 60 MINUTES OF VIDEO

» 100% unofficial

www.littlegreenrobot.co.uk

Android magazine™

» App reviews » Tips & advice
» Hardware tested » Hacking

30
SMART HOME ESSENTIALS
Top gadgets to build your high-tech house

SONY XPERIA Z4
Sony's lightest and brightest tablet reviewed

101 HACKS TO UPGRADE YOUR ANDROID

» Add 8 hours to battery life » Get Dolby-quality sound
» Ensure 70% faster performance » Get an all-new look

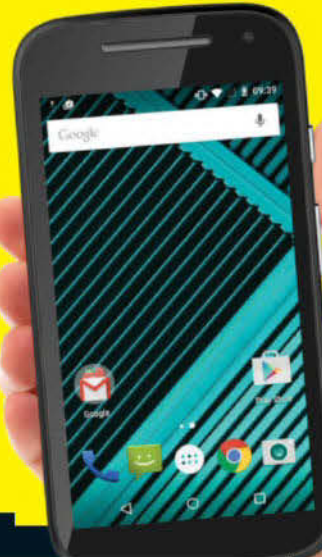
FITNESS BANDS

Best health trackers go head-to-head



MOTO E

The budget phone to beat – just got better



DIY SPY CAMERA

Turn your Android into a secret camera worthy of James Bond

ALSO INSIDE

- » Create custom ringtones
- » Schedule your text messages
- » Unlock Wi-Fi support for G Watch R

ip
IMAGINE
PUBLISHING

Digital Edition

GreatDigitalMags.com

ISSUE 054



OLYMPUS

Your Vision. Our Future

Olympus Cameras

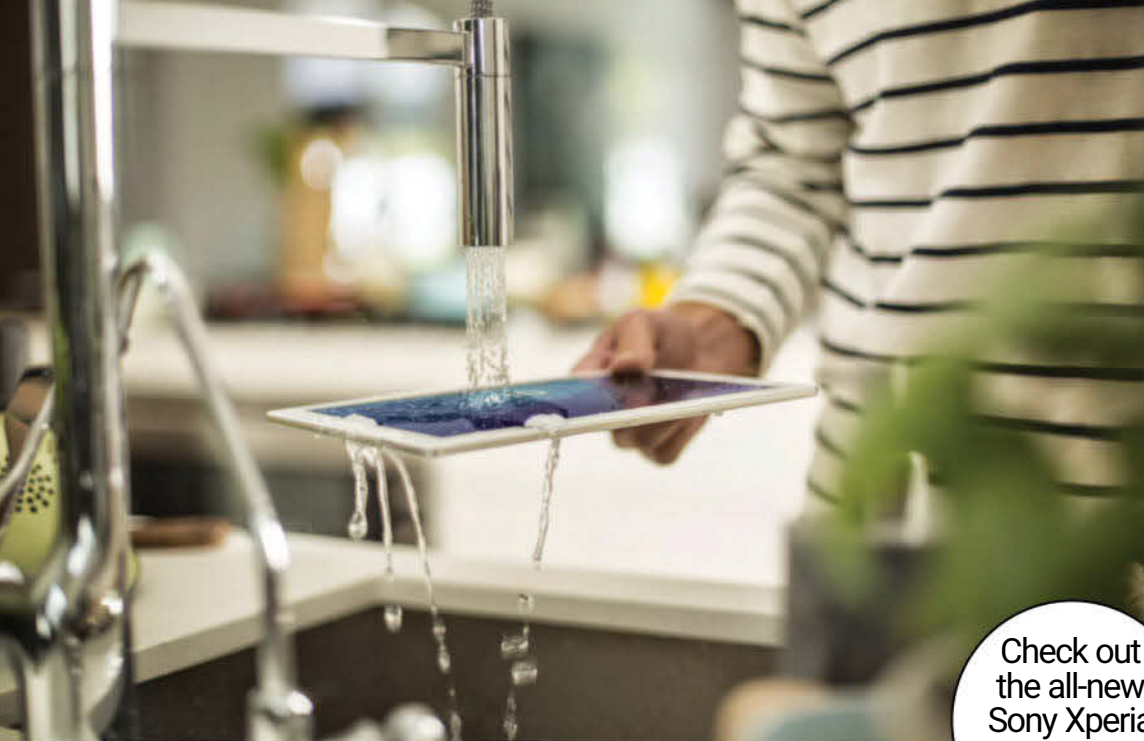
A new perspective.

What has continued to motivate us over the years? Outstanding innovation that generates new perspectives and new possibilities.

The new OM-D E-M5 Mark II features the world's most powerful 5-axis image stabilisation system*, producing breathtakingly sharp images even in low light and shake-free movies, all without the need for a tripod.

*According to CIPA Standard 12/2014.

Discover more: anewperspective.olympus.co.uk



Check out
the all-new
Sony Xperia
Z4 tablet
on page 64

Welcome

The death of the tablet has been greatly exaggerated. Ever-expanding smartphone screens, including the high-profile release of the 6-inch Nexus 6 and 5.7-inch Galaxy Note 4 last year, have certainly led to a slump in slab sales. But people don't shop for a new tablet as often as they do phones, partly because they don't buy them on contract, and tablets rarely offer the same sort of 'must-have' features.

One area where the need for tablets is increasing is at work. Analytics firm Forrester Research has found workers are likely to bring their personal tablets to the office with them, and nearly a third (29 per cent) of businesses provide employees with their own work tablets. With more and more Microsoft apps available for mobile, your Android tab could soon be your ultimate productivity tool. Sony certainly thinks

so; turn to page 64 to read our review of the Xperia Z4 Tablet that comes with a Bluetooth keyboard. You can also read our review of the Lenovo Yoga Tablet 2 on page 68 and our profile of the Samsung Galaxy Tab S2 on page 7.

If you think your smartphone or tablet could use an upgrade, but aren't looking to buy a new one, check out our 101 hacks from page 12. While testing these out, our writer experienced 8 hours extra battery life and found their Nexus 5 ran 70 per cent faster. You can also discover how to upgrade your home with our guide to smart home gadgets from page 20.

Jack Parsons

Jack Parsons
Editor



MEET THE TEAM

What device would you have in your dream smart home?



Jack Parsons
Editor

I can't wait to have my own robot butler, like Robby from *Forbidden Planet*, so I'm hoping Amazon Echo will get a UK launch at some point.



Jamie Frier
Staff Writer

As a Harry Potter nerd I'd love a Weasley clock or Marauder's Map-style app so I know when to avoid my housemate in the kitchen.



Adam Markiewicz
Senior Designer

Using an Android app I would like to change the colour or wallpaper image of my walls, which are covered with LED 'paint'.

GET IN TOUCH

What do you think?
Let us know!

» email

qa@littlegreenrobot.co.uk

Drop us an email and let us know what you'd like to see in the mag

» facebook

/littlegreenrobot

Like us on Facebook to send us your comments

» twitter

@lrobot

Follow us on Twitter and send us your thoughts



FileSilo

FREE – exclusive with this issue

» Unboxing videos

» Video tutorials

» Wallpapers

Watch us get our hands on the second-gen Moto E

Expert video guides to follow along with this issue's tutorials

Stunning backgrounds for Android phones and Chromebooks

www.filesilo.co.uk/android

CONTENTS

26 Exclusive subscription offer **63** Launch offer for Real Crime Magazine

Launcher

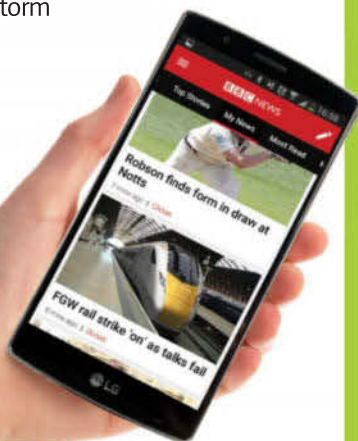


Previews, news and speculation from the world of Android



06 Going for gold

The low-cost Honor 7 taking China by storm



08 News reading apps

Top apps for keeping up with current events



10 10 things you didn't know about phone signal

Find out how to improve how many bars your phone gets

101 HACKS TO UPGRADE YOUR ANDROID

12 Revamp your old phone or tablet with a new look and features

30 SMART HOME ESSENTIALS

20 Essential gadgets to assemble your high-tech home room by room

FANTASTIC FITNESS BANDS

58 Which is the best Android wristwear to track activity?

Hacker Zone This month's top mods and tweaks

44 Hacking Tips & Tricks
Essential hacking advice

46 Enable Wi-Fi on the G Watch R
Use this custom hack to add new Wi-Fi support to the smartwatch the Android Wear update forgot

48 Restrict permissions with XPrivacy
Decide what personal info and hardware apps can access

49 Mix and match icon packs in Lucid Launcher
Use Icondy to choose what icons you want to display

54
GET DOLBY-QUALITY SOUND

50 Tweak Android 5.0 with XBlasT
Use the XBlasT Tools-Xposed module to modify how Lollipop works on your device

52 Save battery by killing background services
Sweep your device for battery-hogging apps

53 Get a fully-customisable hybrid lock screen
Personalise your lock screen to include app shortcuts, additional security, and even an iOS-style slider

54 Dolby-quality sound on your device
Boost your Android's audio quality with this Dolby Digital Plus mod

56 Power up Lollipop's notifications
Use XBridge for Android 5.0 to find out where notifications are coming from

64
SONY XPERIA Z4 TABLET

Reviews Latest tech tested

64 Sony Xperia Z4 Tablet
66 Moto E (2015)
68 Lenovo Yoga Tablet 2
70 Toshiba Chromebook 2
72 Alcatel OneTouch Idol 3
73 LG Leon 4G
74 Pebble Time

58 Fantastic fitness bands
Health trackers go head-to-head

76 Accessories
Tylt Vū and Bayan Audio SoundScene reviewed

88 Buyer's Guide
Monthly top 10 tech charts

66
MOTO E (2015)

74
PEBBLE TIME

Apps Your complete guide to Google Play

78 App reviews
The latest and greatest apps on test

82 Head-to-head
Pocket Runner takes on Endomondo

84 Game reviews
The best games reviewed

86
HITMAN: SNIPER



20+ APPS

Visit the **Android Magazine** online shop at **imagineshop.co.uk** for back issues and books

Tutorials

Get more from your device

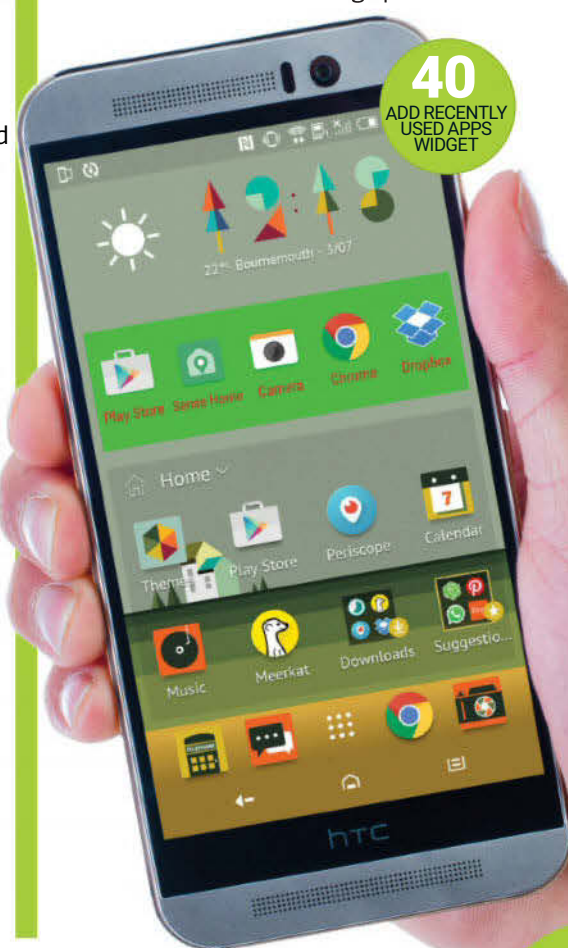
28 Masterclass: Become a social media superstar
Top tricks to earn your 15 minutes of internet fame

32 Tutorials

- 32** Add labels to notes in Google Keep
- 33** Schedule texts with SMStagger
- 34** Set your favourite tune as a ringtone
- 36** Turn any device into a 007 spy camera
- 37** Get a feel for Android M's Google Now on Tap today
- 38** Merge and unmerge Chrome tabs in Lollipop
- 40** Get an Android M-like Most Recently Used bar
- 41** Boost your battery with IFTTT

92 Droid Support
Readers' questions answered, plus useful troubleshooting tips

40
ADD RECENTLY USED APPS WIDGET





Launcher

All the latest from the world of Android devices



The Honor 7 will launch in Europe later this year

Medley of Honor

Huawei has been doing its best to win over the West with its Honor brand. Here's what we thought of its three top phones

Honor 6

Honor's flagship handset was well-received, offering an octa-core processor and next-gen LTE connectivity for £250.

Android Issue 47



Honor Holly

Taking on the Moto G, the Holly offers a 720p HD screen and solid 8MP camera for £110, but suffers from sluggish performance.

Android Issue 50



Honor 4x

This 5.5-inch phablet boasts a 720p screen, impressive 13MP rear camera and 3,000mAh battery, but again suffers from poor performance.

Android Issue 53



Going for gold

Honor's latest handset sold 200,000 phones in two-minute flash sale

Honor, the smartphone brand from Chinese manufacturer Huawei, has sold a staggering 200,000 units of its Honor 7 phones in just two minutes during an online flash sale.

Honor and rival manufacturer Xiaomi have made their mark in the smartphone industry by providing top-quality phones at bargain basement prices. However, it's the method of selling that has really helped change the game.

Rather than selling phones through stores and offering free handsets on contracts like the traditional powerhouses such as Samsung, LG and HTC do, Honor sells the phones itself online, meaning it cuts out the costs of being stocked in the high street and can therefore sell the handsets much cheaper. The stock also tends to be limited, which coupled with flash sales, helps to increase hype and excitement. "Over 9 million people in China have already registered to buy the new Honor

7, which marks a great success," commented Lars-Christian Weisswange, chief engagement and communication officer for Europe. The event, which was only available to the Chinese market, saw the three models available sell at an astonishing rate of 1,667 every second.

This business model of low costs, low surplus and keen consumer interest clearly leads to results and has helped Honor carve a sizeable chunk out of the market share over its rivals in China. At the moment that success is still yet to translate to the rest of the world.

But the new Honor 7 handset could help with that. It boasts a 1080p 5.2-inch display, a 64-bit Kirin 2.2GHz octa-core processor and 3GB RAM. There is a massive 20.7MP rear camera and an 8MP front camera; comparable to the advanced phone cameras found on Sony mobiles. The only difference between the three models in the range

is the storage. There is a choice between 16GB, 32GB or 64GB. However, all models come with microSD support, which provides users with up to 128GB of extra storage.

The 16GB version sold for around £210, the middle dual-SIM version for around £230 and the 64GB version sold for approximately £260. This is excellent value for the specs the handsets offer.

The Honor 7 will be making its way to the European market later this year, and it will be interesting to see whether the Honor business model will work as well in other countries as it is proving to do in China.

If you would like further information about Honor and keep updated as to when the Honor 7 is to be released where you live, or maybe just to learn about the other phones in the Honor range, pay a visit to the company's site at hihonor.com or its Facebook page at [facebook.com/HonorEurope](https://www.facebook.com/HonorEurope). ■



RAM raid

The octa-core processor is backed up with a useful 3GB of RAM, so you should be able to multi-task on the Tab S2 without having to sacrifice too much in the way of processing speed

Perfect ppi

Although the 9.7-inch version has marginally less ppi than the original 10.5-inch Galaxy Tab S at 264ppi, it's still an excellent resolution for a tablet, on a par with the iPad Air

Fingerprint scanner

As with the original Tab S, this model includes a fingerprint scanner for an added level of security. It is a tap scanner instead of swipe, which will definitely please most users

Work on the move

The Tab S2 is offering the full Microsoft Office Solutions suite as well as an impressive 100GB of OneDrive storage, which will be free for two years

Samsung Galaxy Tab S2

Samsung looks to take on Apple's next iPad with its super-bright new tablet

Samsung has announced the Galaxy Tab S2 as its latest high-end tablet, boasting the thinnest and lightest specs of any tablet on the market.

Available in 8-inch or 9.7-inch versions, both will run an incredible 2,048 x 1,536 Super AMOLED screen that enables 94 per cent of natural colour tones to be seen. We are expecting big things in terms of visuals from the Tab S2, especially when it comes to viewing photos. The Adaptive Display automatically adjusts the screen according to application or ambient light, reducing the risk of eye strain when used over long periods.

Both models are just 5.6mm thick, while the 9.7-inch option will weigh a mere 389g. Using what Samsung describes as the world's "thinnest and lightest metal frame of its size", the Tab S2 is thinner and lighter than the iPad Air 2.

The 9.7-inch model is powered by a 5,870mAh battery, the 8-inch uses a 4,000mAh battery and both run an octa-core Exynos 7 processor that combines a quad-core A57 1.9GHz processor and a quad-core A53 1.3GHz processor, so it should have

some serious power. Samsung hasn't upgraded the camera from the Tab S, as both models have an 8MP rear camera and 2.1MP on the front, although both are missing the flash. The storage has been upgraded though, so you can now get 32GB or 64GB storage, which can be extended up to 128GB with a microSD.

Samsung is clearly hoping the Tab S2 will get the march on Apple, ahead of the anticipated iPad Air 3 and mini 4 launch in October, and with these specs there seems a good chance of that.

The price is at the top end of the market, with the LTE version of the 8-inch model coming in at €469 / \$508 and 9.7-inch at €569 / \$616. To find out more, visit samsung.com.

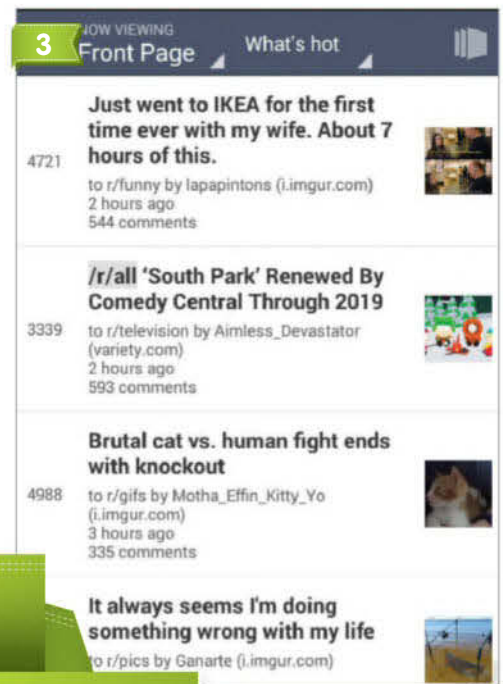
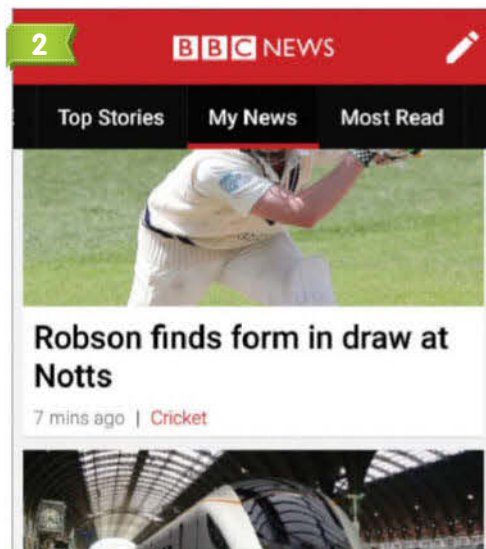
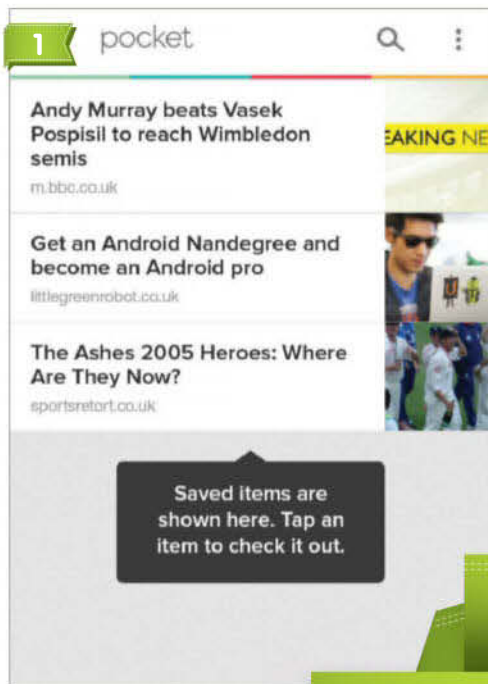


FOR MORE ON GALAXY TAB, CHECK OUT

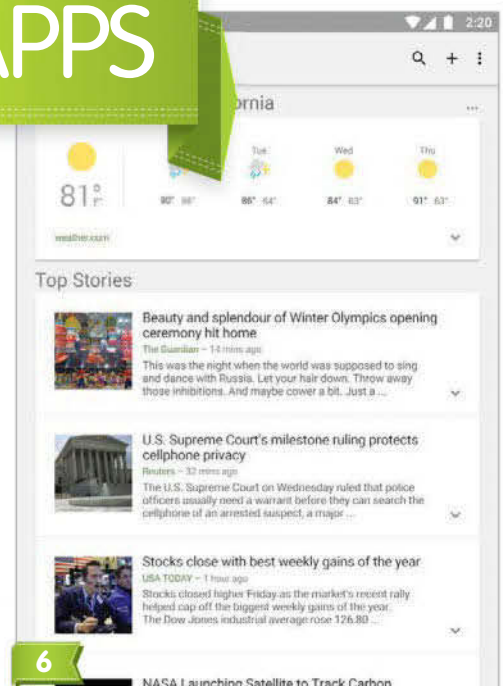
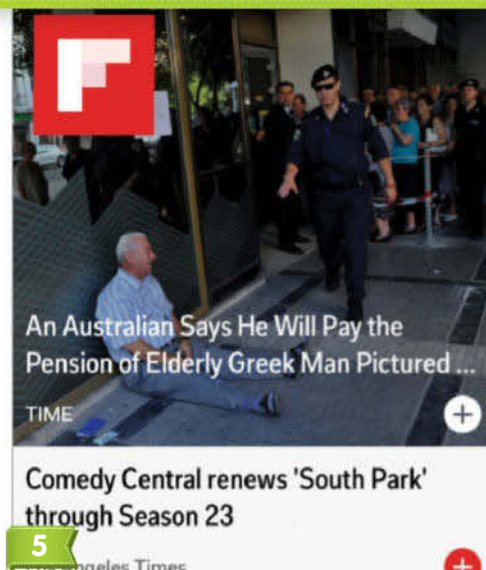
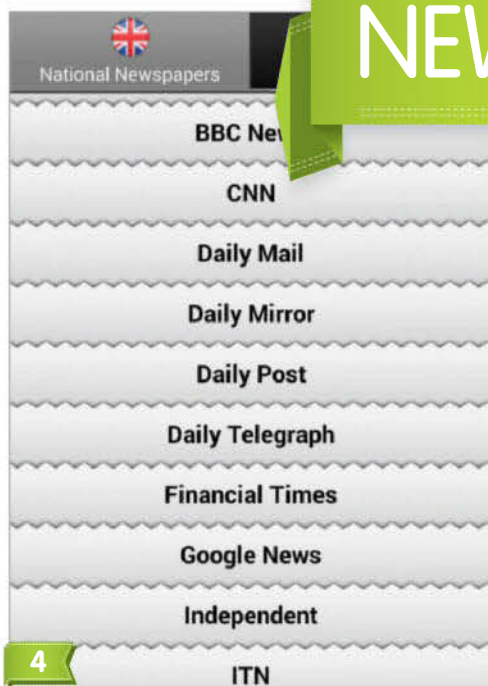
THE
SAMSUNG GALAXY TAB BOOK

ON SALE NOW

AVAILABLE FROM ALL GOOD NEWSAGENTS & SUPERMARKETS,
OR ONLINE AT WWW.IMAGINESHOP.CO.UK



GALLERY OF... NEWSREADING APPS



1 Pocket

If you often find yourself noticing an interesting headline but never seem to have time to read it straightaway, download Pocket. This free app saves stories for you to read later in a user-friendly, easy-to-read format suitable for mobile and tablet.

» Price: Free + IAPs

2 BBC News

The BBC has a well designed app that not only shows you the most popular and recent stories but lets you personalise the news topics you receive. This is very useful as it means you can choose to see only the stories that are of interest to you.

» Price: Free

3 Bacon Reader

If you want to see the front page of the front page of the internet, then the Bacon Reader app is the place to go. It shows you what's hot on Reddit right now but also has a easily accessible subreddit list for delving further into a subject.

» Price: Free + IAPs

4 Newspapers UK free

Rather than have a load of newspaper websites bookmarked or switching between their apps, try Newspapers UK. This app has brought all the major UK national and regional newspaper websites together into one app.

» Price: Free

5 Flipboard

This app, that will be found pre-loaded on quite a number of Android phones, collates news from a huge range of online sources and delivers it beautifully packaged to your phone. You can then build your own magazine through your favourites.

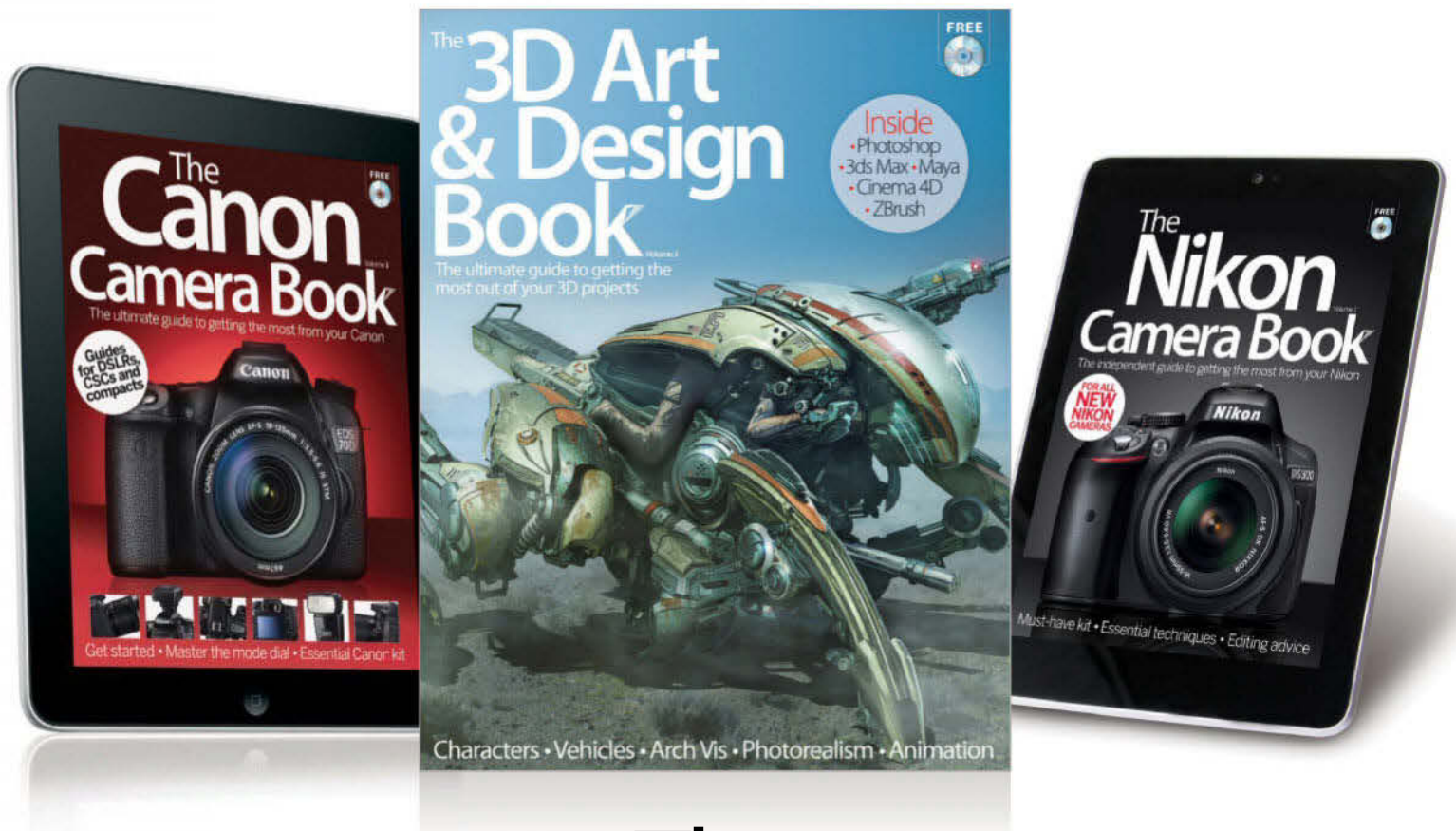
» Price: Free

6 Google News & Weather

Like a mobile-friendly version of the Google News website, this app aggregates stories from around the world. You can fine-tune the app to your tastes, tap any story for related articles and opinion pieces, and set up several widgets.

» Price: Free

Learn in style



The BookTM Series

Discover more with the Book series' expert, accessible tutorials for photography, 3D art, Photoshop, web design and more

BUY YOUR COPY TODAY

Print edition available at www.imagineshop.co.uk

Digital edition available at www.greatdigitalmags.com

Available on the following platforms



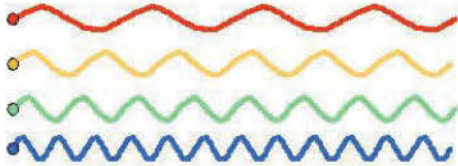
facebook.com/ImagineBookazines



twitter.com/Books_Imagine

It's all about frequency

Carriers all have their own bandwidth that they use to carry signal. A carrier such as EE operates a high frequency, resulting in stronger signal outdoors as the wavelengths are bunched closer together. However, once it passes through materials such as brick, higher wavelengths get absorbed by the brick and scattered, making signal indoors much weaker. The reverse is true for lower-frequency bandwidths, which struggle outdoors, so this is something to consider when choosing a network provider.



Hide-and-seek

Mobile phone masts are not popular with communities, partly due to health concerns but also due to the look of the masts. In order to continue expanding their network coverage, carriers are getting smarter. Mobile signal antennae can now be found hiding inside flagpoles, fake trees and even fake chimney pots. Carriers will often have to come to some financial arrangement with both private and public building owners to add a mast to the top of their building.



Water is the enemy

Signal arrives at your phone in the form of wavelengths and nothing disrupts them quite like moving water. As the wave enters the water it will get refracted in all different directions. It is estimated that you'll get no phone signal at all at a depth of just five centimetres underwater. This might be academic anyway, as hearing a ringtone or a person's voice relies on vibrations that would also struggle underwater as they would get absorbed by the liquid and scattered.



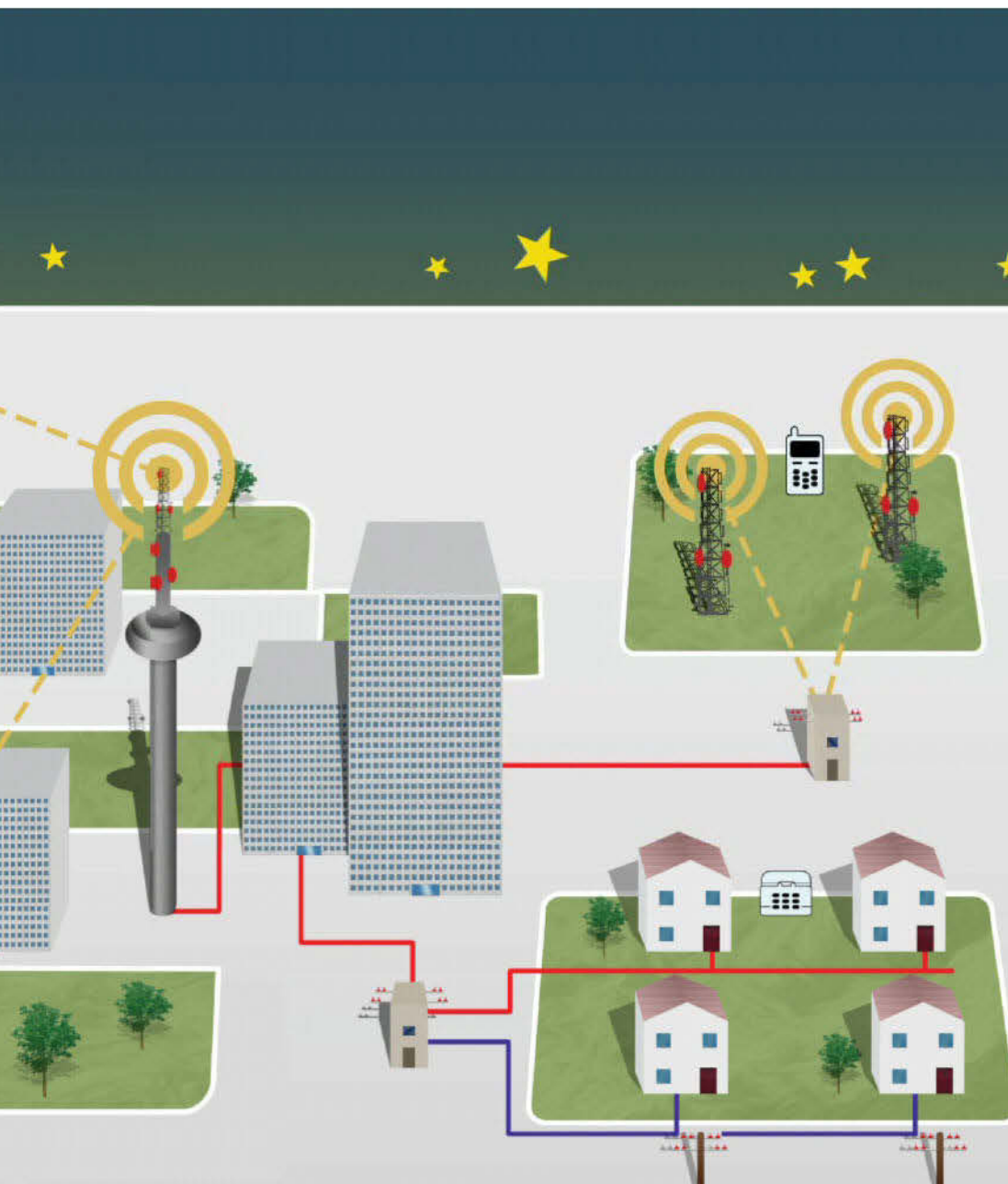
Portable masts

For the majority of the year, farms and rural areas don't need a lot of mobile signal. However, during festival season when thousands of bandwidth-hungry music lovers descend on them, there is a much greater demand on the masts. To combat this, carriers will bring temporary masts mounted on vans to the site. Vodafone, for example, took four such vans to last year's Glastonbury to ensure its users got the best possible signal strength.

Volume is key

Places where thousands of people regularly gather, such as sports stadiums and theatres, need to be able to cope with huge numbers of phones trying to access the network all at the same time. To cope with this, carriers will install hubs – which can look like fire alarms on the ceiling – in the building that adds many more channels to the area. The signal won't be particularly strong or quick, but it will make it more likely that you can actually get on your network.





Ain't no mountain high enough

Mobile signal radiates outward so you can comfortably get signal at the top of a mountain as long as you're within sight of a mast. Areas that are built up, or towns where there are lots of hills struggle to send signal over a wide area because objects get in the way. However, signal can happily travel for a good couple of miles in uninhibited area. Indeed, climbers of Mount Everest can get 4G, 5,200m up at Base Camp.



VoLTE is coming

VoLTE stands for Voice over LTE, where you can make voice calls using your phone's LTE signal, rather than the usual voice channels. This will be very handy for those times you don't have any normal phone signal but can get online through 3G, 4G or Wi-Fi. This could make calling from rural areas much easier if you have some kind of mobile Wi-Fi device that you can plug in to create that essential Wi-Fi signal. EE has been experimenting with VoLTE since 2014, while Vodafone, Three and O2 are rolling out VoLTE soon.



4G isn't always best

Even though 4G is generally considered the holy grail of mobile signal, in some scenarios 3G can actually be faster. A weak 4G signal on one carrier, maybe if a mast is a long way away or there are objects obscuring it, will give you slower upload and download speeds than a good 3G signal. Signal strength will always be the most important factor in your mobile speeds so don't feel you absolutely have to get a 4G phone in order to keep up.



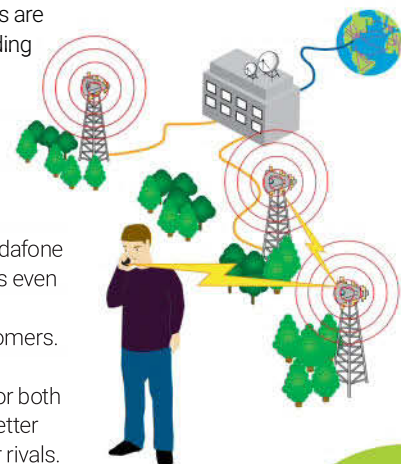
Automatic retuning

If your phone is capable of getting 4G it will try to use it wherever possible as it has the potential to be the fastest way of uploading and downloading data. However, modern phones are capable of realising if using a 3G connection might be faster, due to a stronger signal. If it detects that is the case, it will automatically drop down to use the 3G signal instead, improving the user experience without them having to touch a single setting.



Sharing is caring

The majority of masts belong to just one carrier, which is why you might be experiencing rubbish signal but the person sitting next to you has five bars. Individual firms are responsible for building and maintaining their towers and they will decide where they want to place them. However, some carriers, such as Vodafone and O2, share masts even though they are competing for customers. This increases the network coverage for both so they can claim better coverage than other rivals.



101 HACKS TO UPGRADE YOUR ANDROID

Revamp your old device with a new look and features

We've got some good news – you don't need the very latest Android smartphone to get a great Android experience! With some time and effort, you can upgrade any Android device so that it runs smoother, consumes less battery, looks nicer, and is generally far more enjoyable to use. Whether you have a phone that's starting to show its age, a newer device that isn't quite living up to expectations, or you simply want to get the most out of your smartphone, then there are plenty of apps, hacks and tricks that can

improve your Android experience.

In this guide, we've highlighted 101 ways to improve your device. This will include customising the user interface, from making drastic design overhauls using launchers and custom ROMs, to smaller tweaks such as changing the icons of individual apps and the shade of your status bar. You'll also learn how to get a performance boost by tweaking the kernel, removing bloatware, and taking advantage of multitasking apps. During the

course of writing this feature, after carrying out all these tweaks on a Nexus 5, we found that they added an extra eight hours onto our device's battery life and performance was 70 per cent faster.

This guide covers an essential mix of hacks, apps and built-in features buried in the Settings. While there is plenty here for power users that have rooted their Android, unless stated otherwise, you'll find everything mentioned over the next eight pages on Google Play.

Customise your app icons

Expand your creativity by choosing from thousands of alternative app icons with the Glim Lite UI icon pack

01 Change your launcher

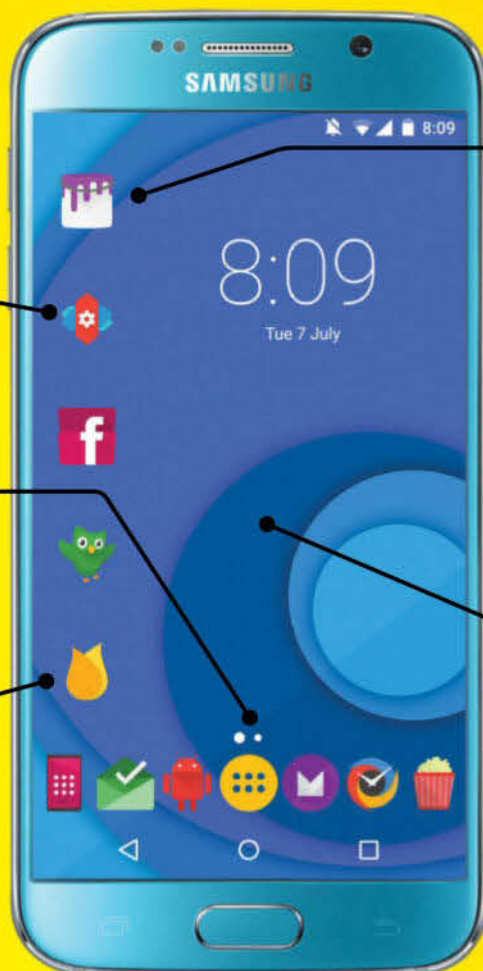
Download Nova Launcher and Glim from Play. Set Nova as your default launcher by selecting Settings> Home and Nova.

02 Increase dock icons

Open Nova Settings, then select Dock>Dock Icons. Once that's done, whack up the number of icons that you can fit into your dock.

03 Apply Glim icons

Open Glim. On the first screen, scroll to Nova and tap the red Apply text. Read the pop-up window; tap OK.



04 Customise your icons

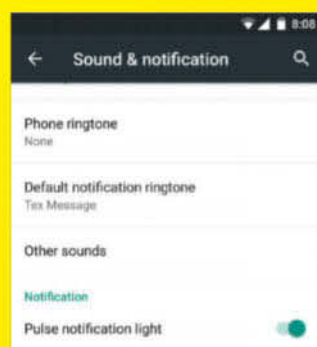
On your home screen, long-press each app icon, select Edit and tap the app's icon in the pop-up that appears.

05 Browse for icons

Tap Glim and choose a new app icon from Glim's huge catalogue. Give that icon a tap, then select Done.

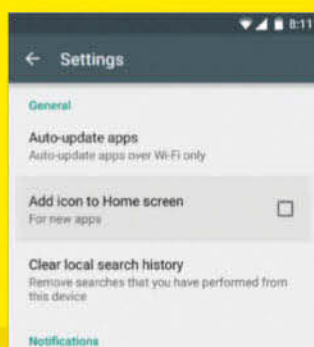
06 Change your wallpaper

Finish things off with a Glim wallpaper. Long-press on your home screen, then select Wallpapers>App & Themes and then finally Glim Lite.



07 Hide notifications

Android displays information about your notifications on the lock screen. If you don't want this, open Settings, select Sound & Notification, then tap 'When your device is locked,' followed by 'Don't show notifications at all'.



08 Don't add to home screen

When you install an app, Play adds a shortcut to the home screen by default. To prevent Play from creating these shortcuts, open the Play app and tap the menu icon. Select Settings and then deselect 'Add icon to Home screen.'



09 Try Android M

If you own a Nexus 5, 6 or 9 and you're feeling adventurous, you can flash an early release of Android M to your device (<http://goo.gl/Yok2Xv>). However, this is only a developer preview release so make sure you read Google's disclaimer carefully!

New-look launchers

Overhaul your homescreen with these unique layouts



10 Hexy Launcher Free

Hexy displays your apps as hexagonal tiles, arranged in a grid on your home screen. Hexy organises your apps automatically, with the most frequently used ones appearing in the centre, but if you can't spot the one you're after you can filter the apps in your grid using Hexy's useful search bar.



11 Launcher 10 Beta Free

This unique launcher adds integrated live weather effects, so when the forecast says snow, expect to see snow falling on your home screen and settling on your app icons. This launcher also adds a sidebar containing recent and favourite apps, plus other useful shortcuts such as toggling Wi-Fi functionality on and off.



12 Action Launcher 3 Free + IAPs

This launcher gives you an additional way of accessing apps. Swipe from the left of your home screen to see a complete A-Z of all apps installed on your device. If you upgrade to the Plus version, Action Launcher also automatically extracts colours from your wallpaper and then uses them as a basis to customise your layout.



13 Yahoo Aviate Launcher Free

Aviate is a contextually-aware, 'personal assistant' launcher that gathers your favourite apps together and arranges them based on different activities, such as Social, Productivity and Photography. If you tell Aviate your home and work location, it will also offer you different apps that are based on your current location.



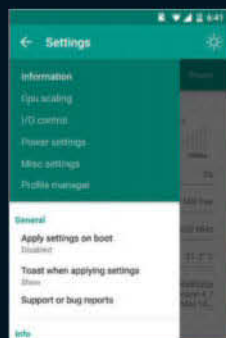
14 Buzz Launcher Free

If you're a fan of theming your device, then you may want to take a look at Buzz Launcher, which gives you easy access to a user-created library of thousands of themes. To see what's available before you install the app, view details at homepackbuzz.com.

15 Increase battery life with Kernel Toolkit

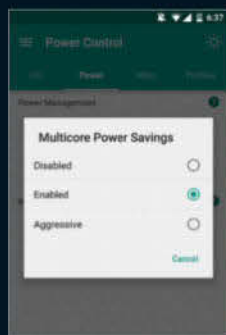
Purchase Pro Unlocker

Install Kernel Toolkit. Launch the app, open the side menu, then tap Unlock Pro Features. Follow the instructions and purchase Kernel Toolkit Pro Unlocker (£2.18).



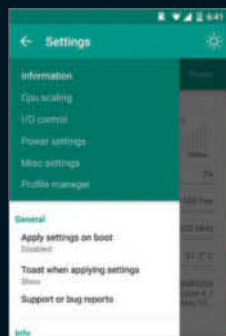
Group tasks into least threads

Launch the app, swipe to the Power tab. Tap Multicore Power Savings and set to Enabled or Aggressive. You're less likely to have issues with Enabled.



Confused? Request help!

Depending on your kernel, you'll see different options. If you're confused about any of these settings, you can get more information by tapping the '?' towards the top of the menu.



Tweak with Xposed and modules



16 Don't have Xposed?

To grab Xposed for Android 5.0 Lollipop, follow this link to download it from the XDA Forums: <http://goo.gl/B3GLjo>. Once installed, add modules by launching the Xposed Installer, tapping Download, and searching for the module in question.

17 Swipe up to sleep

On some Android devices the Power button isn't always in the most convenient location. The SwipeUpToSleep Xposed module enables you to turn your screen off just by swiping up from the home button.

18 Make your device boot faster

Certain apps may take it upon themselves to start running automatically when your device boots, which can really eat into your performance. Control exactly which apps start running on system startup, with the BootManager module.

19 Get control over apps

Android M's new permissions model will give users more control over what information apps can access. Until then, use AppOpsXposed to restrict permissions on a per-app basis, which also restricts the information these app(s) can access.

20 Feed apps fake data

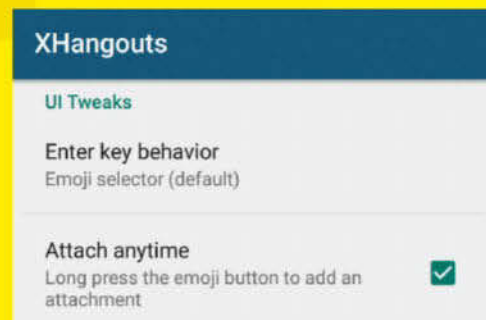
Similar to AppOpsXposed, XPrivacy is a module for the privacy-conscious, which has a few more options. Use this module to restrict the data categories each application can access while feeding your apps fake data.

21 Password-protect your individual apps

Add an extra layer of security to your Android device by protecting individual apps with a password, PIN or pattern. With the ProtectedApps module, you can lock down both third-party and system apps.

22 Get more detailed

Do your lock screen widgets fail to deliver enough information at a glance? When you install the aptly-named Maximize Lockscreen Widgets module, all your widgets appear expanded by default, so you can see more details.



23 Customise Google Hangouts

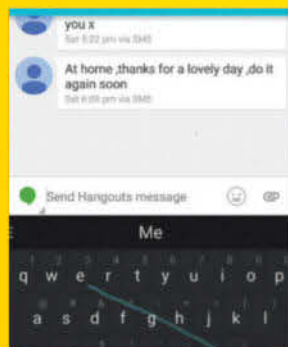
The XHangouts module enables you to personalise the stock Hangouts app by changing its colour and hiding all the buttons that you don't use. It also gives you more control over the format and quality of your MMS images.

Tired of Google's stock apps? Try these alternatives



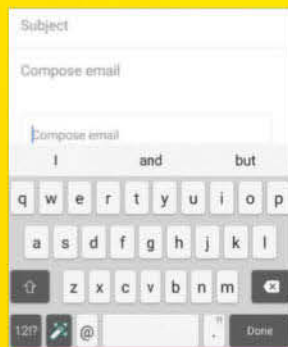
24 Calendar widgets

Bored of the stock Google Calendar widget? Grab Calendar Widget: Month and get access to over 70 new calendar widgets, which sync automatically with your Google Calendar account.



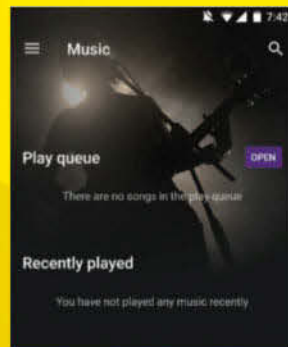
25 Replace keyboard

SwiftKey Keyboard + Emoji is a popular replacement keyboard. It adapts to your writing style, supports both tapping and swipe-to-write, and is fully customisable with over 70 designs and themes.



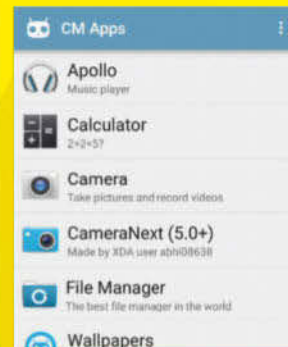
26 Get Xperia keyboard

Lollipop and KitKat users can enjoy the Sony Xperia Z3 keyboard, even on non-Z3 devices. In order to get hold of this keyboard port, head over to: <http://goo.gl/tNGDg8>.



27 Ported Xperia apps

If you want to get more of that Z3 experience, Lollipop users can grab a selection of ported Xperia apps from XDA Developers (<http://goo.gl/Z4hRua>) and then flash them to their device.



28 CyanogenMod without root

Download CM Apps, and you'll have access to the apps, wallpapers and the launcher that usually come pre-installed when you flash the popular CyanogenMod custom ROM.

Boost performance by streamlining your device

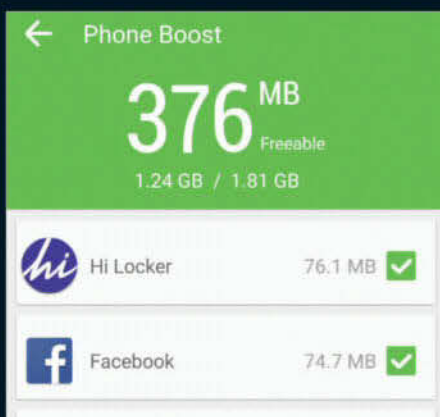


29 Identify similar images

Do you take multiple photos at once, just to make sure that you get a perfect one? The Clean Master app frees up space by identifying similar and blurry photos, and flagging them for deletion.

30 Delete stock apps

All Android devices come with stock and manufacturer apps pre-installed. You can remove this bloatware and free up some space on your device, by enlisting the help of an uninstaller app such as App Master.



31 One-tap boost

Booster for Android is a free app that promises to boost your device's system and release memory, with its one-tap boost feature. This app also displays how much memory you can gain by deleting specific apps.

32 Limit activity

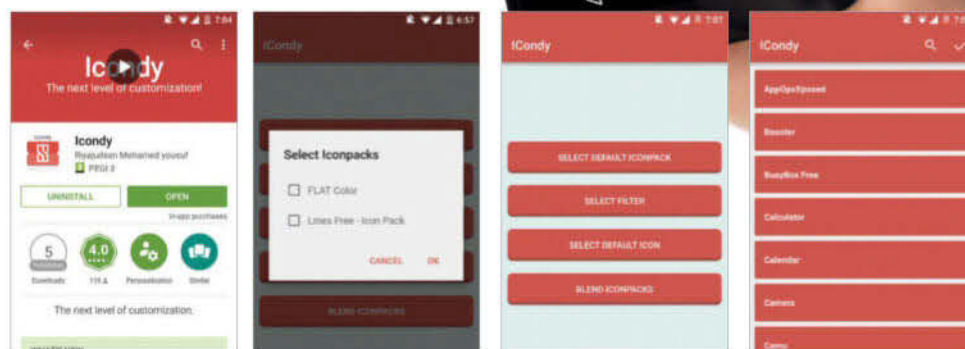
Processes running in the background can have an impact on your performance. Assistant for Android kills these unnecessary processes, while also offering a host of other useful performance-boosting features.

33 Move apps to SD card

DS Super App2SD Lite lets you move any app from internal storage to your device's SD card (even if those apps are marked as 'internal only'), freeing up precious internal memory in the process.

34 Use icons from multiple packs

Changing icons is one of the easiest and most immediate ways of customising your device. There are lots of icon packs out there, but you know that you're going to like some icons from one pack and other icons from a different pack. That's not a problem with Icondy...



Download Icondy

Like some icons from one pack, and other icons from another? Combine them all into a single pack by downloading Icondy from Google Play.

Select your packs

Launch Icondy. Tap '+' and give your pack a name, then tap on OK. Now tap on Select Iconpacks and select the packs you want to use. Tap OK.

Blend your packs

Tap on Select Default Iconpack and select one of the packs you want to use. Tap on Blend Iconpack. You'll see a list of all installed apps.

Apply blended pack

Tap each app and select which icon you want to use. When you're happy with your selection, apply your blended pack simply with a swift tap on the checkmark.

35 Material Design theme

Not all apps have adopted Google's new Material Design principles. The Melior UI theme brings Material Design to more apps, and seeks to improve the look of apps that haven't implemented Material Design in the best way. This theme requires a ROM with the CM12 Theme Engine.

36 A colourful CM12 theme

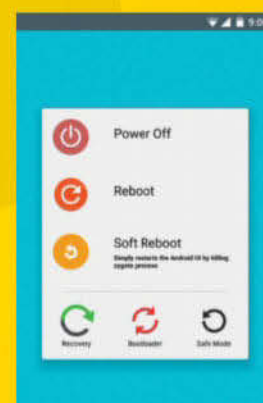
If your current ROM includes the CM12 Theme Engine, you may also want to check out Uranium UI, a theme for those who prefer the vibrant and colourful look! If you're a fan of the free theme, you can always upgrade to Uranium UI Full by parting with £0.61.

37 Replace the stock Android lock screen

The AcDisplay app provides a minimalist alternative to the stock lock screen. This lock screen also has an Active mode where it uses your Android device's sensors to automatically wake up your device when you need it.

39 Material power menu

Override the stock power menu using this Xposed module. This mod includes additional options, including rebooting directly into recovery. Access this advanced menu by opening the normal power menu, then pressing Power Off. You'll find this module on Google Play.



40 Get a "colorPrimaryDark"

According to Google's Material Design, the status bar should change to reflect the current app's "colorPrimaryDark" attribute. This isn't the case with all apps and can result in a black status bar. The Lolistat Xposed module fixes this, changing the bar to a dark version of the app's main colour.

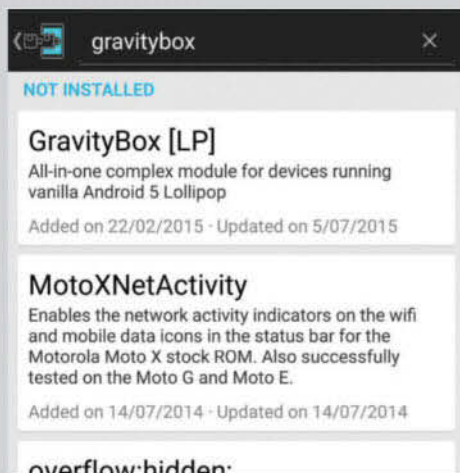
41 Dual boot your Android

Struggling to choose just one ROM? Or maybe you want a quick way to test a few potential ROMs? MultiROM Manager lets you install multiple ROMs on a single Android device, and then switch between them whenever your device boots. You'll find this root-only app on Google Play.

38 Test with Screen Shift

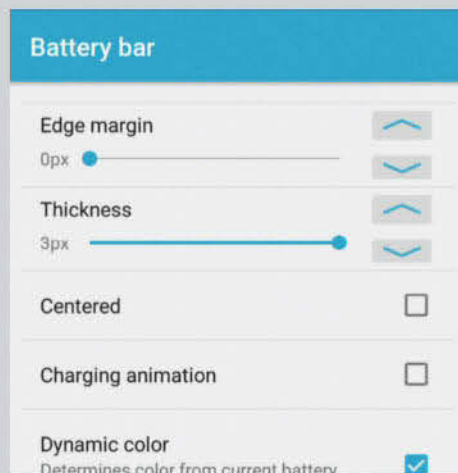
Test your apps across a variety of screen resolutions, densities and overscan settings, to see which combination works the best for your device. You can download Screen Shift from XDA Developers <http://goo.gl/5uw48z>.

42 Customise vanilla Android with Xposed



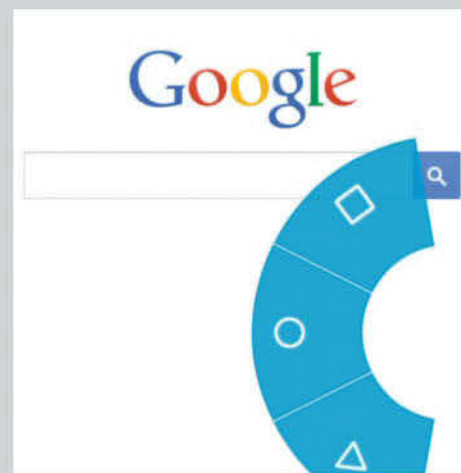
Install GravityBox module

If you want to tweak your device but don't want to flash a custom ROM, then it's worth checking out the GravityBox module. Download it via the Xposed Installer app.



Make some cosmetic tweaks

Launch GravityBox and you'll see all the different customisation options. You can make cosmetic changes, such as changing the colour of the status bar and adding an onscreen 'battery bar.'



Get extra features

Other changes give you additional functionality. One feature worth exploring is Pie Controls. This adds a pie-style side menu to the Chrome app, which you open with a swipe gesture.

Welcome

This app will assist you as you install the CyanogenMod experience. You will need a Windows PC running Vista or newer, or a modern (x86) Mac, and a USB cable.

43 CyanogenMod custom ROM

This is one of the most popular and well-known custom ROMs. You can install CyanogenMod by downloading the flashable files from cyanogenmod.org/ or just give the new CyanogenMod Installer a go!

44 Stock Android, only with some tweaks

The Paranoid Android ROM looks similar to stock Android, with the addition of some subtle enhancements and optimisations. One to try if you're not after a radical design overhaul! Learn more at <http://paranoidandroid.co>.

45 Fully customisable ROM

If you're after a custom ROM that gives you the ability to tweak every aspect of your device, then it's worth checking out BlissPop. This ROM is based on CM12.1 and can be accessed by heading over to <http://goo.gl/BVDh8T>.

46 Android Open Kang Project

The AOKP ROM is built from the Android source code published by Google. If you want a no-frills, vanilla Android experience then this is the ROM for you. Learn more at <http://aokp.co/>.

Keep your device secure

47 Monitor apps

See every connection your apps make to the internet, including whether they're transmitting or receiving any data, with Network Log.

48 Get a firewall

AFWall+ lets you create different firewall rules on a per-app basis, so you can have total control over which apps access your networks.

49 Antivirus

360 Security protects against malware, vulnerabilities, adware and Trojans, and also scans installed apps and APK files in real time.

50 Get protection

NowSecure monitors your device's system, apps, configuration and network for security vulnerabilities and notifies you of potential threats.

51 Secure Wi-Fi

Free VPN: Hotspot Shield VPN secures your Wi-Fi with HTTPS – encryption that's commonly used to keep online payments secure.

52 Safe password

LastPass makes it easier to have a unique password for every account, by providing a secure place to store passwords.

53 Block calls

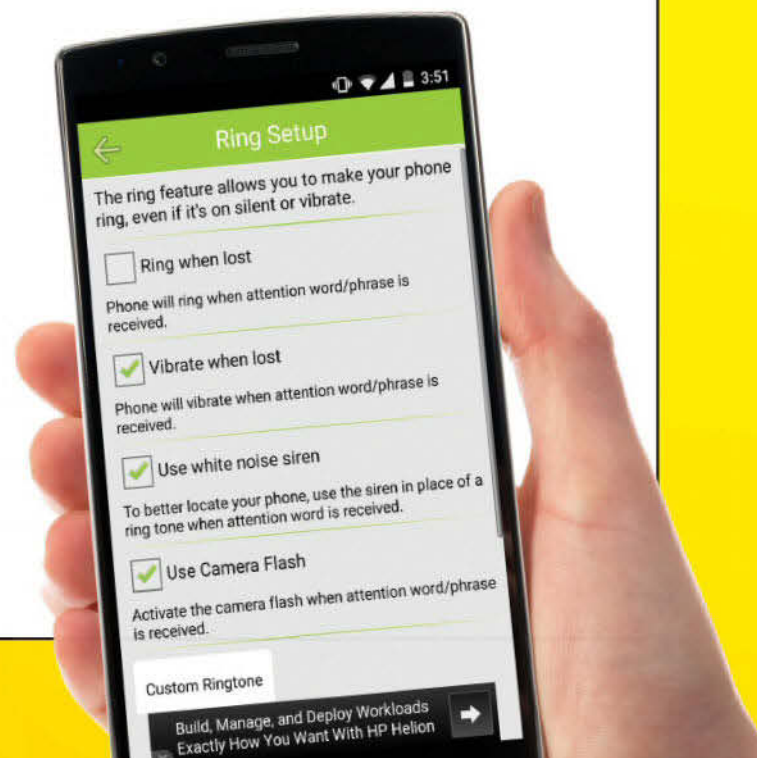
The Mr. Number app lets you block calls and texts, in addition to automatically intercepting calls from unknown or private numbers.

54 Lock down pics and videos

Secure Gallery helps keep your private photos and videos private, by securing them with a password or PIN.

55 Where's My Droid?

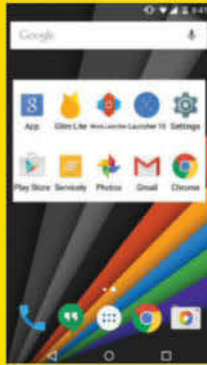
This app helps you find a lost or stolen device, by remotely accessing its GPS location and making your device ring.



8 time-saving shortcuts

56 Most recently used apps

Instead of cluttering your home screen with app shortcuts, add them all to a single widget by downloading MRU from Google Play. This nifty widget gives you easy access to all of your most recently used apps.



57 Clear All Recents button

Close all running apps and open windows across your stock Lollipop device with a single tap, by installing the Clear All Recents mod. You'll find the file and instructions by popping along to here: <http://goo.gl/83rwB5>.

58 Boot directly into recovery

If you regularly boot into your device's recovery, you can speed up this process with Quick Boot. Open up this app, and boot directly into recovery or bootloader simply by hitting that option in the menu.

59 Use gesture control

All In One Gestures is an app that lets you control your device through simple gestures. For example, you may want to open Recent Apps by left-swiping, or launch an app by tapping the screen.

60 Add an undo button

Do you ever wish Android had an undo button? Inputting+ is an app that provides undo, redo, and find & replace shortcuts in a small floating bubble that appears whenever it is that you're inputting text.

61 Google Handwriting Input

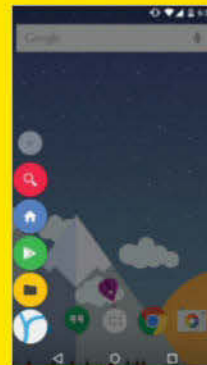
Write directly into your device with this app that supports printed and cursive writing, with or without a stylus, and can recognise hundreds of handwritten emojis. Works with Android 4.0.3 and higher.

62 Scroll Me Up module

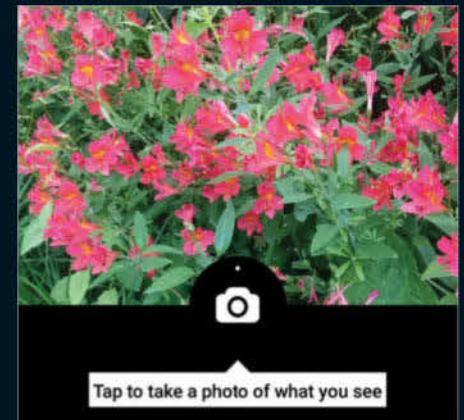
When you're reading a long page of text, scrolling back to the top can be time-consuming. This Xposed module lets you jump straight to the top or bottom of the screen with just a tap.

63 Use a floating launcher

Wherever you are, you can summon the Rovers 'floating' launcher and get instant access to all of your favourite apps, folders, actions, and shortcuts. To open Rovers, simply tap its floating 'trigger' point.



Take better photos with apps and hacks

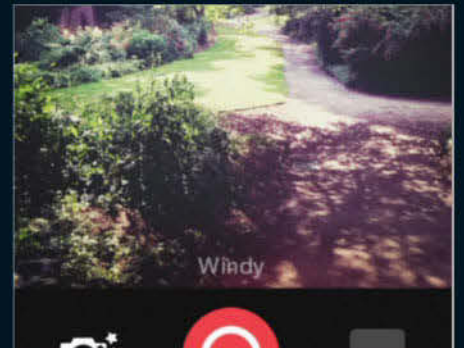


66 Tell a story

Use photos to fun effect with the aptly-named Frontback app. This app lets you take a photo with the front camera, another with the back camera, and then share them both as a single image.

67 Time-lapse photography

Create fun time-lapse effects using the ChronoSnap app. Simply tell the app how many photos you want it to take, and over what period of time, and then set it running.



68 Experiment with live filters

Love using filters? Preview how your photo will look with a certain filter applied, before you actually take the photo, using the Camu app's 'live filters.' This app also comes with easy-to-use clarity controls.

69 Shoot RAW

If you're serious about your mobile photography, then Camera FV-5 gives you access to DSLR-like manual controls, including the ability to shoot in RAW format and set an exposure time of up to 30 seconds.

70 Autocorrect images

Not a fan of manually editing photos, but still want professional-looking images? The Perfectly Clear camera app features intelligent image correction that performs 18 different corrections automatically, with a single tap.

DiskDigger

Please select a partition from the list below. If no partitions show up, tap the Refresh button and accept any superuser requests.

- /system, 1 GiB
- /data, 12.78 GiB
This is probably your device's internal memory.
- /cache, 700 MiB
- /persist, 16 MiB
- /firmware, 64 MiB

AppHunt

1. **Flynx - Read the web...**
Open links without leaving the app: with ad remover and...
6 comments Jul 7
2. **Flud (Ad free)**
A light weight, well designed torrent client
2 comments Jul 8
3. **Textra SMS**
A highly customisable SMS app!
11 comments Jul 8

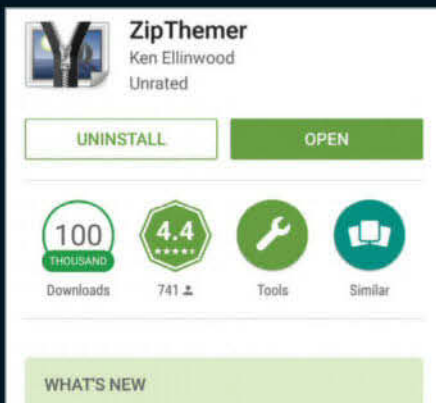
64 Un-delete your photos and images

Have you ever deleted a photo by accident? The DiskDigger app gives rooted users a way to recover lost photos and images. Install this app from Google Play, launch it, and you'll see a list of all the different areas where you can scan for lost files.

65 Discover new apps

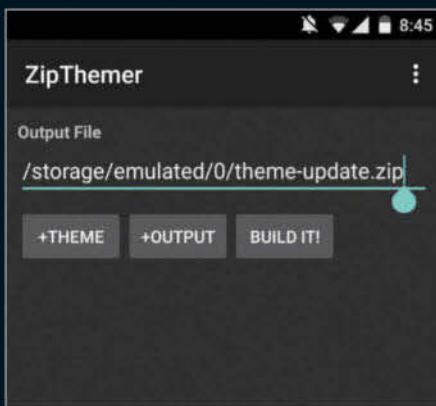
If you're always on the lookout for new apps, then you may want to install AppHunt. This app provides a curated list of apps that updates in real time. On the main page, you'll find the apps that have received the most votes from AppHunt users, over the past week.

71 Customise your device's softkeys



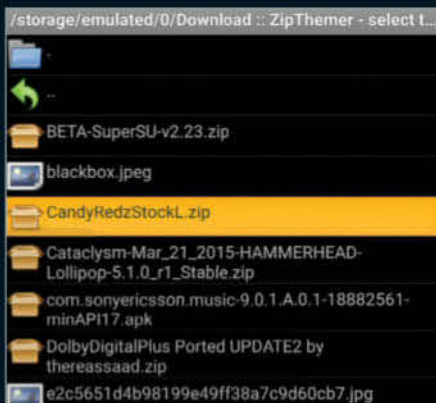
Choose your new graphics

If you're not a fan of stock softkeys, you can replace them with a range of different graphics. Download ZipThemer, and then ensure you have a custom ROM handy.



Upload your softkey graphics

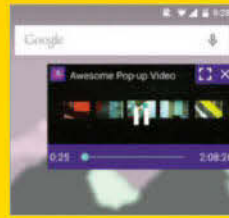
Choose some new softkey graphics you like from <http://goo.gl/rri06v> and then download them to your device. Launch ZipThemer and then tap on '+Theme.'



Build your ROM

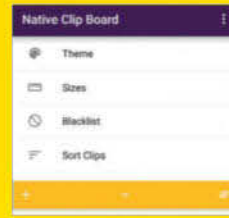
Navigate to the new graphics you just downloaded and tap to select. Tap on Build It. After a few moments, you'll have a flashable ROM that contains your custom softkeys.

Become a power user



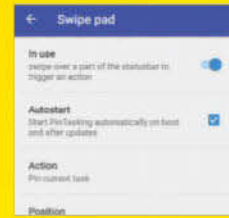
72 Pop-up videos

There's no need to pause your movie just because you need to reply to an email. Watch videos in a separate floating window, with the Awesome Pop-up Video Xposed module.



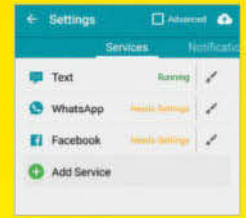
73 Powerful clipboard

Copy multiple pieces of text at once, using the Native Clip Board Xposed module. When it's time to paste, open Native Clip Board and choose from all your currently-copied text.



74 PinTasking

This app enables you to pin tasks, documents and apps so that you can access them quickly from any screen. To enable PinTasking, launch it, select Swipe Pad and then tap In Use.



75 Disa

Manage all your online and SMS conversations from one location. Install Disa, open its Settings and start adding services by tapping Add Service and choosing from the supported apps.

Optimise a device's battery life

76 GO Battery Saver

This app provides modes that you can switch between to extend your battery life in different ways. You can also create custom modes and significantly extend your remaining charge, by tapping the main Optimize button.



77 Auto-hibernate apps

Prevent apps from misbehaving in the background; Greenify lets you hibernate apps across your device, using a Hibernate Now home screen shortcut. It also has an App Analyzer feature that flags up potential misbehaving apps.

78 Prevent battery drain

Wakelocks drain your battery by preventing your device from going into a deep sleep. The Amplify Xposed module enables you to limit how often your device can wake up, and how long it stays awake for.

79 Instant deep sleep mode

Send your device into deep sleep mode as soon as you turn the screen off. The Deep Sleep Battery Saver app has with five pre-defined profiles that should cover most of your battery-saving needs.

80 Control your network

The Smart Network Xposed module saves battery by changing your device's network state when your screen is off, including disabling Wi-Fi or Bluetooth, and switching your network mode to 2G.

81 Consider underclocking

CPU Tuner lets you tweak your device's power consumption, including saving power by lowering your device's clock speed. When used incorrectly, this app can cause some problems, so make sure you know what you're doing!

82 Adjust brightness

Use BrightTime to automatically adjust your screen's brightness based on the time of day. This saves battery by ensuring your screen is never brighter than it needs to be. Grab BrightTime from <http://goo.gl/iAOF1y>.

83 Preserve battery

Battery Doctor provides stats about how long your battery will last if you perform different tasks, identifies battery-hogging apps, and lets you create profiles.

84 See remaining battery

Do you feel the stock battery icon doesn't give a clear indication of how much battery you have left? Add a percentage to your battery icon, by installing the Battery Percent Enabler app.

85 Get a shutdown countdown

Your device is down to 1%, but how much time do you have before it actually shuts down? The Battery Shutdown Manager Xposed module displays a countdown to your device completely running out of battery.

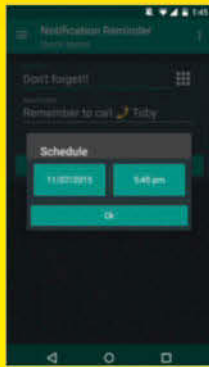
86 Analyse your battery use

Is your battery disappearing faster than you'd like? BetterBatteryStats zeros in on misbehaving apps and analyses how your device uses battery.

Get more out of notifications

87 Store notes as notifications

Jot down quick notes that you can then schedule to appear as notifications at designated times, using the Notification Reminder app. If you like, you can also create notes and then store them as permanent notifications.



88 Disable heads-up

Lollipop introduced 'heads-up' notifications, but if you find these distracting, you can disable them using the HeadsOff app. You can either disable all heads-up notifications, or disable them for selected apps only.

89 Restore ticker text

Similar to HeadsOff, Ticklr disables heads-up notifications and replaces them with the old-style 'ticker' notifications. When this app is enabled, you'll see notification text in both the status bar and on your lock screen.

90 Notifications at a glance

Tired of hitting the power button every time you want to check notifications? Glimpse Notifications automatically turns your screen on whenever you receive a notification.

91 Get notification reminders

Do you ever see a notification, think 'I'll deal with that in a minute,' and then completely forget about it? Repeating Notifications ensures you don't forget, by repeating the notification after a set period of time.

92 Notification shortcuts

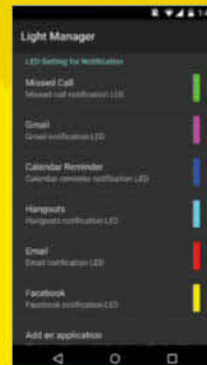
Notification Toggle lets you add shortcuts to your status bar, in the form of permanent notifications. You can use these notifications to perform lots of different actions, including toggling your Wi-Fi on and off.

93 News via notifications

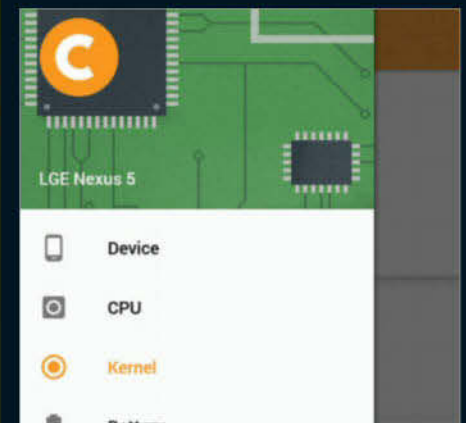
Use notifications to access the latest news. Tell the Top News app what news you're interested in, and it'll display all relevant breaking news as floating, bubble-style notifications.

94 Assign colour to notifications

Notification lights inform you about a new notification – but what kind of notification is it? With Light Manager you can vary the colour and frequency of this light, depending on the kind of notification received.



Monitor every part of your Android device



97 Info about your system

Get a useful overview of your device by using the Castro app in order to discover more about your CPU, kernel, battery, and memory. This is a good starter app for learning more about your device.

98 More detailed stats

The AIDA64 app provides a deeper insight into your device's hardware and software. Features include real-time GPU clock measurement and sensor polling, alongside information about your OS.

99 Monitor RAM and CPU

Keep an eye on your CPU and RAM usage by adding CPU and RAM indicators to your device's status bar. The Tincore – CPU RAM Monitor app also provides general stats about your device's CPU, GPU, RAM and battery.

100 Monitor data usage

Ever been shocked by the size of your phone bill? Data Status makes it easy to keep an eye on your cellular data usage by adding an automatically-updating icon directly to your device's status bar.



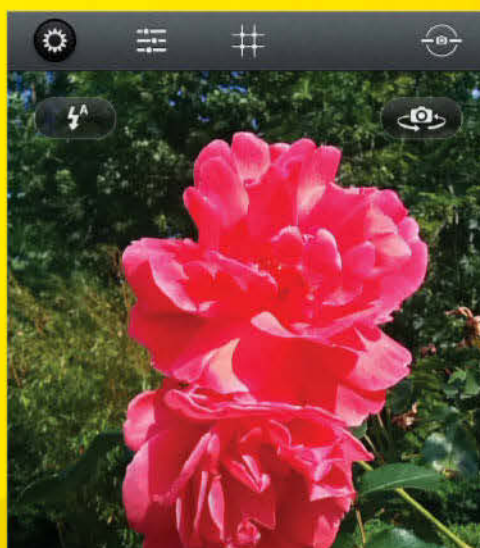
101 Overall performance

The Root Booster app provides an overview of how your device is currently performing in terms of speed, battery and stability. After reviewing, you can apply different profiles that optimise these three areas.



95 Manual camera control

Manual Camera gives direct control over your device's camera hardware, including the lens, white balance, shutter speed and flash. You can purchase Manual Camera from Google Play (£2.09 / \$2.99) and can run a free compatibility test before purchasing, to ensure it's suitable for your device.



96 Try an iPhone camera

Get the popular iOS app Camera Awesome for Android. Camera Awesome has all the features you'd expect from a camera app, plus the ability to ensure group shots remain focused by tracking multiple faces at a time. It also has over 100 editing effects including an insta-edit Awesomize button.

30 SMART HOME ESSENTIALS



Top gadgets to assemble your high-tech house room by room

Picture this scenario: you arrive home from work, strategically avoiding a mile-long traffic jam after your car knew to take a different route. As you pull into the driveway, your house automatically recognises you, so unlocks your front door, switches on the lights, and turns on the central heating to the temperature you like. Once inside, you head to the kitchen and drop a steak into a high-tech pan, reassured that it will be seared to perfection without you having to pay it any attention. Instead, you wander into the living room and speak aloud to an omnipresent computer, commanding it to play music or read you a book. Alternatively, with a tap of your phone, you could load up your favourite Netflix show on your big screen TV. Does this sound like something straight out of a sci-fi movie? In fact, this scene is not from the world of tomorrow, but the world of today. You don't have to wait for Google's Project Brillo to get off the ground or spend thousands rewiring your entire house with sensors to live in a smart house, though. Read on to discover 30 Android accessories that you can purchase today to automate every room of your house.

Knock, knock – enter the house that tech built



August Smart Lock

Say goodbye to fiddling around with door keys: August automatically unlocks the door when it connects with your phone by Bluetooth. You can also put friends and family on an approved list for instant entry and log who has been in and out.

» \$249.99 | august.com



Netatmo Welcome

Like your own robot butler, Welcome will alert you when people walk through the door by sending a notification to the companion app on your phone. With a built-in camera and face recognition software, it will even tell you who they are.

» £199/\$199 | netatmo.com



Kwikset Kevo Smart Lock

Kevo is created by established locksmith's Kwikset. Like August, Kevo will unlock automatically when it senses your phone, but Kevo also works with the Nest Learning Thermostat to tell it when you come and go to save energy and reduce your utility bills.

» \$219 | kwikset.com



One-Door Garageio

Garageio lets you open and close your garage door with the tap of your phone, no matter where you are. IFTTT integration also enables Garageio to open automatically when it detects you're nearby and close when it starts raining.

» \$199 | garageio.com




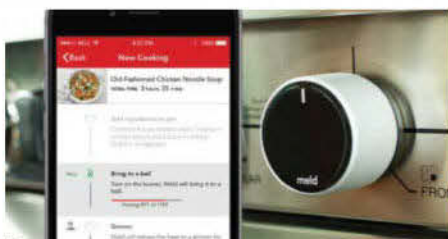
Ensure the heart of your home is stress-free with these products to take the heat out of the kitchen

Kitchen

Cook the perfect meal

If the thought of preparing a meal makes you come out in a cold sweat, ensure you never overcook your food by upgrading your existing stove with the Meld Knob. This device actually consists of three parts that work together: a thermometer that attaches to any pan, the titular knob that replaces one of your cooker's existing 'dumb' knobs, and an app for your Android. The first task is to select what meal you're cooking from the companion app's recipe book; this will then communicate with both devices. The temperature sensor will know precisely when said dish is too hot and tell the knob to turn down the heat. Created by two former Amazon engineers, Meld was crowdfunded through Kickstarter, and is due to go on sale in September.

 **Meld Knob**
\$129 | meldhome.com



Smart smoke detection

For a lot of people, the act of making toast is duly followed by the scream of the smoke detector. With this clever device, though, you need never worry about that again. The Google-owned Nest Protect will speak aloud and tell you what room there's smoke in and even send an alert to your phone. This smart smoke detector can distinguish between smoke and steam, and even sense the difference between a smouldering and fast-burning fire. If you need to evacuate at night, Nest Protect's emergency lights will guide the way. False alarm? You can also mute the Nest Protect from your phone.

 **Nest Protect**
£89 / \$99 | nest.com

The HAL 9000 of heating

Do you ever get plagued by a nagging feeling that you've left the heating on when you've headed out for the day? While it may look like the evil supercomputer from *2001: Space Odyssey*, Nest Thermostat is actually here to reassure you. It will automatically turn off the boiler when its proximity sensors realise you're not there. Over time it will also learn your habits, including your preferred temperature and what time you leave for work in the morning, and will then adjust the heating accordingly, ultimately saving you money on your energy bills.

 **Nest Thermostat**
£249 / \$249 | nest.com



Anova Precision Cooker

Like a wand that will turn you into a gourmet cook, Anova Precision Cooker specialises in sous-vide cooking. Connect it to your pan, select a recipe from the companion app, then leave Anova to prepare your on-trend foodie dish.

» \$179 | anovaculinary.com



iKettle

A watched pot never boils, or so they say, and the same goes for kettles. If this is the case, tap an app on your phone and carry on with what you're doing – safe in knowledge this Wi-Fi connected gizmo is pecculating in the kitchen.

» £99.99 | firebox.co.uk



Sage Smart Toast

From pioneering chef Heston Blumenthal, this four-slice toaster ensures you won't burn your breakfast. Tap a button and the toast will glide up and down to show you how it's browning – all without interrupting the toasting cycle.

» £169.99 | sageappliances.co.uk



Pantelligent Smart Frying Pan

Select what you're cooking from the app and this 12-inch non-stick frying pan with a temperature sensor and Bluetooth will give you step-by-step instructions, while ensuring your dish doesn't overcook. Android compatibility is coming soon.

» \$199 | pantelligent.com



Living room

Take complete control over all of your media and leisure devices



Ahead of the curve

Smart set top boxes like the Nexus Player and Amazon Fire TV are a great way to turn your idiot lantern into a brain box, but they will do nothing to improve the picture quality. The JS9000 SUHD TV, on the other hand, delivers razor-sharp 4K resolution on a curved screen, which gives the image even greater depth. So-called 'quantum-dot nanocrystals' make the screen 2.5 times brighter than any other LCD and offers a much wider colour gamut. It can also run top apps and games, including all the best catch-up services, in addition to supporting web browsing and screen mirroring using Samsung Easy Sharing.

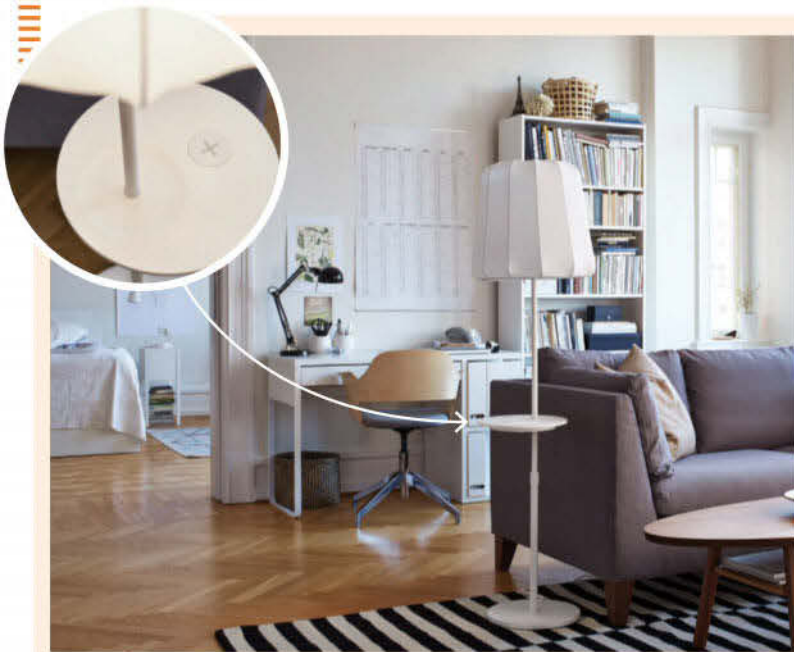
 **48" JS9000 9 Series Curved SUHD Smart 3D LED TV**
£2,599.99/ \$3,999.99
Samsung.com

Your wish is Amazon Echo's command

You've heard of a genie in a bottle – well Amazon Echo can be thought of as a genie in a Bluetooth speaker. This genie is named Alexa, who is a voice assistant similar to Google Now or Siri for iPhone. Speak aloud and ask Alexa to play a song, read you an eBook, check your calendar, compile a shopping list, or get a weather report and it will do it. Amazon Echo's brain is in the cloud so it's always learning, both to adapt to your speech patterns and personal preferences. And because it's always connected, updates and new features are automatically added. For instance, Amazon Echo was integrated so it can control all Wink smart home products, as well as Philips Hue lightbulbs and Belkin WeMo smart switches. Currently Amazon Echo isn't available outside of the US, with no international launch announced, but you can buy it in the UK via importers on eBay.


 **Amazon Echo**
\$179.99 | amazon.com





Charge where you are

Everyone has bitter experience with the struggle of trying to send a text message while your phone is plugged into a charger with a very short cord. Swedish furniture company Ikea aims to solve this problem – as well as tidy up the ugly business of having wires everywhere – with its new range of Home Smart products. These include table lamps, bedside cabinets and even solutions for offices, which have built-in chargers cleverly incorporated into the design. Created in partnership with Samsung, the range was launched alongside the Galaxy S6, but the integrated charging mats will work with any device that supports Qi charging. However, all is not lost if your device can't wirelessly charge; every unit also has a USB outlet for discreet charging. Home Smart products start at £30/ \$29.99 for the Jysen wireless charger, which can then be teamed up with furniture.

 **Jysen wireless charger**
£30 / \$30 | ikea.com




Get a smart TV for £30

The Chromecast has been around for two years, but it's still one of the cheapest and best ways to connect your television to the internet. This USB stick-sized device plugs into the back of your TV and connects with your phone or tablet, allowing you to stream music, movies, games and more from your apps. This includes Google services such as Play Music, Chrome and YouTube, but also third-party favourites like Netflix, Plex and Deezer.



 **Chromecast**
£30/ \$30 | googlestore.com

The future's bright

 **Philips Hue**
£149.99/ \$199.99 for a pack of 3 | meethue.com


Philips Hue LED lightbulbs enable you to control your home lights from any Android device. This is perfect for those times when you've gone out and think you've left them switched on, or even switching them on when you realise you're staying out late to act as a deterrent to thieves. You can even change the colour and brightness of light, which might sound like a gimmick, but the Reading preset provides just the right light to curl up with a good book.



Get smarter sockets

Rather than having to rewire the entire house with built-in Bluetooth sockets, Belkin's WeMo Insight Switches plug into your existing outlets. Anything you then plug into them – whether it's your TV, stereo, fan or coffee pot – can be turned on and off across Wi-Fi, 3G or 4G. The WeMo app gives you complete control, so you turn all devices off at once or toggle them individually, as well as set schedules. WeMo also integrates with IFTTT for added automation possibilities.




 **Belkin WeMo Insight Switch**
£49.99/ \$59.99 | belkin.com

Wi-Fi hi-fi

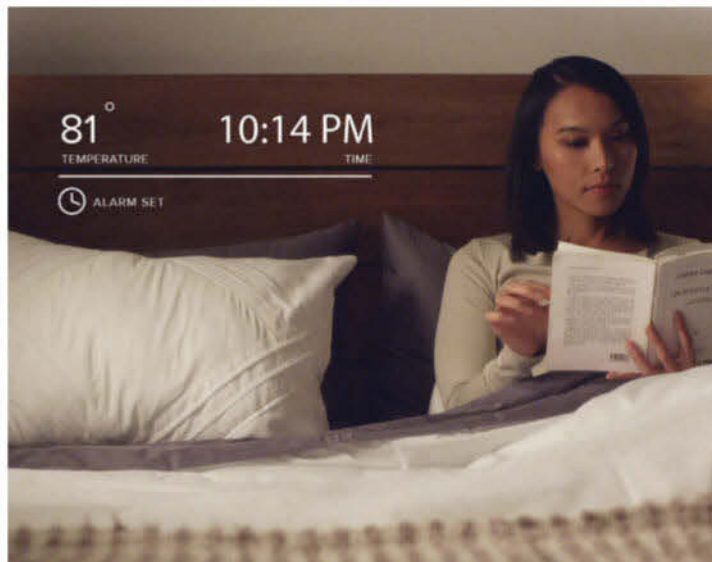
There are wireless speakers and there are *wireless speakers*. Packing state-of-the-art amplifiers, two tweeters, two midrange drivers, and a subwoofer into one sleek case, the Sonos Play: 5 delivers crystal clear sound. Connecting over Wi-Fi, this mini hi-fi can happily play your entire music library, stream Play Music or internet radio. While the £350 price tag is a bit of an eye-raiser, if you're ever feeling flush, buy several speakers and create a multi-room network that you can control from the comfort of your phone.



 **Sonos Play: 5**
£349/ \$399 | sonos.com

Bedroom

Gently drift off into the land of nod with the help of this smart technology



S+ watches you while you sleep...

Although it may sound like the stuff of nightmares, the S+ sleep sensor is a welcome alternative to having to wear a fitness band in bed. Instead, the S+ uses radio signals to monitor your breathing and body movement, as well as track other factors that affect your sleep, such as noise, light and the temperature. The free app provides you with a complete report of your sleep data, in addition to offering advice on how best to drop off. The S+ is due to launch in the UK soon.



ResMed S+
£TBC/ \$149.99 | resmed.com

Wrap up warm at night

Hot water bottles are so 20th Century; Luna's smart mattress cover can be adjusted to the perfect temperature degree to help you drop off. You can do this manually with the companion app, but it will also learn your preferred temperature over time. There are

even separate controls for each side of the bed for couples. More than just an electric blanket, Luna can also track your sleep cycle, heart rate and breathing, integrate with Nest, and works with IFTTT.

Luna Smart Mattress Cover
From \$265 | lunasleep.com



Hale Dreamer Alarm Clock Speaker Dock

Keep the Hale Dreamer Alarm Clock Speaker Dock by the side of your bed to charge your phone at night and it will ensure you get an uninterrupted sleep by blocking unwanted calls. Come morning, it will wake you up with its 10w speaker.

» \$129.99 | haledevices.com

Bathroom

From washing to weighing, you can inject fun and functionality into your daily ablutions



BMI bathroom scales

The Withings Smart Body Analyzer does a lot more than your average bathroom scales.

Not only does it offer a highly accurate weight reading, it measures your body fat and Body Mass Index, and takes your pulse through your feet. All this data is then tracked through the companion app, which can set weight-loss goals. If you like to hop on the scales first thing in the morning, this internet-connected



gadget also gives you the day's weather forecast so you can plan exactly what to wear.

Withings Smart Body Analyzer
£129.95/ \$149.95
withings.com

Kohler moxie Showerhead + Wireless Speaker

In your futuristic smart home, there's no reason why you should have to make do with singing a capella while you have your daily scrub in the shower. The Kohler moxie Showerhead includes a Bluetooth speaker so you can stream all of your favourite songs to keep you company while you wash.

» £124/\$199 | kohler.co.uk



Kolibree

Kolibree is the electric toothbrush that will have kids (even the big ones) rushing to clean their teeth at every possible opportunity. And why is this? It's simple; a motion sensor in the device will make a character in a Temple Run-style game move around and collect points as they brush, so dental hygiene becomes fun.

» \$199 | kolibree.com



Garden


Your smart home upgrade doesn't end at the back door; you can also automate your outside space



Turf Terminator

Robomow is to lawn care what the Roomba is to vacuum cleaning. With a high-powered steel blade and rugged wheels that can mow a 36% incline, this robotic lawn mower works entirely on its own to maintain your grass. It has tilt & drive sensors for safety, and rain


sensors can send it automatically to its base to protect your turf. However, an app also allows you to keep track of your Robomow, including its schedule and mowing zones, and even drive it manually.

 **Robomow RC304**
£1,199 | robomow.com

High-tech flower power

The Parrot Flower Power monitors your plants' health. This includes measuring air temperature, how much sunlight your plants receive, moisture, and even soil fertility based on its electrical conductivity. You can then track all of this data in real-time using the free Parrot Flower Power app, which will even

send you alerts when your plants need watering. Parrot Flower Power will also work with Belkin WeMo switches to automate your sprinklers or Philips Hue smart bulbs in order to assign your pot plant more light indoors.

 **Parrot Flower Power**
£42/\$59 | parrot.com



Grillbot

One of the highlights of summer is having a barbecue in your backyard – whether it is raining or not – but one of the low points is definitely having to scrub the grill clean afterwards. Powered by three electric motors with brass wire brushes, and the option to set it on a timer, Grillbot is here to scrub your barbecue grates until they gleam like new.

» \$129.95 | grillbots.com



Droplet

Program Droplet to identify what type of plants you have and where they're located in a 30 feet radius through your phone or laptop, and Droplet will water them like a smart sprinkler. Connected to Wi-Fi, it will also consult weather reports to be more efficient, both to conserve water and save you money.

» \$204.41 | smartdroplet.com




Garage

Give your runaround a serious upgrade by incorporating some smart technology into your life



Connect your car to the web

Automatic is a simple device that will turn your everyday motor into a smart car. Plug the Automatic adapter into the standard diagnostic port hidden the dash – a common feature in most cars since 1996 – and it will connect your car to your Android. The default Automatic app decodes engine trouble and remembers where you parked, but the device also works with other apps, including IFTTT, Nest, YourMechanic for assistance and Concur for claiming travel expenses.

 **Automatic**
\$99.95 | automatic.com



Tytl Ribbn

Phone chargers that plug into your car's cigarette lighter are certainly nothing new, but we're sure you'd agree that few are as stylish as the Tytl Ribbn. Available in a range of colours – black, green, blue and red – this flat 1 metre cable is helpfully tangle resistant, and is capable of charging two devices at the same time.

» \$39.99 | tytl.com



Garmin nüviCam LMT-D

A standalone GPS unit might sound a little outdated in a smartphone world, but Garmin nüviCam LMT-D is so much more. As well as a 6-inch display and complete map of Europe, it also has a dash cam that will alert you if you drive too close to another car or drift into oncoming traffic.

» £299.99/\$399.99 | garmin.com



SUBSCRIBE
AND **SAVE 30%**



**PAY
ONLY
£10.50
EVERY 3
ISSUES**



Order hotline
0844 245 6963

Calls will cost 7p per minute plus your telephone company's access charge

Online at
www.imaginesubs.co.uk/and

Terms and Conditions: This offer entitles new UK direct debit subscribers to pay only £10.50 every 3 issues. New subscriptions will start from the next available issue. Offer code PQ15 must be quoted to receive this special subscription price. Details of the Direct Debit Guarantee are available on request. This offer 30 September 2015. Imagine Publishing reserves the right to limit this type of offer to one per household. Subscribers can cancel this subscription at any time.



Become a social media superstar

Top tricks to earn your 15 minutes of internet fame

Building a social presence takes patience, some careful planning and a constant eye on everything you say. The initial stages can be full of ups and downs, but this is perfectly normal because the web is a big place and only the strongest will prevail. Remember that you are potentially projecting your personality on social networks, podcasts, the web and all sorts of other places, and to build a loyal following takes a lot more work than

you may expect. We will reveal how to use tools to increase awareness of what you have to offer, but we cannot teach you how to behave. You need to nurture your profile and understand what people think of you. If you are able to put yourself in the shoes of others, you will likely be more successful simply because you can see how what you say has an impact. By the end of this tutorial, you will be ready to become a social superstar.

Helpful social apps

Streamline and expand your social networking presence with apps

Access all your services

Quick access

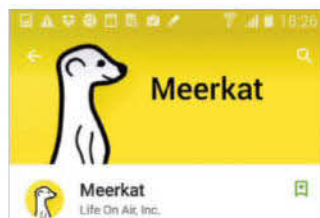
Download Social Media All In One App from Google Play to gain access to countless services from the one place. This will save lots of time if you have accounts with many services.



Host special events

Real-time streaming

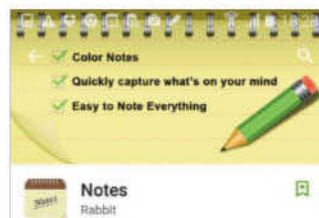
Apps like Meerkat let you stream video to your followers. This is a very useful tool for building loyalty once you have followers and can greatly enhance your online presence.



Don't lose an idea

Capture creativity

Any notes app can be used to ensure that you do not lose a valuable idea. Simply open the app, note it down and use it. You may be surprised at how many ideas come to you once you start.



Five ways to ensure social network success

1. Build your identity

Use a curated selection of popular online services to get your message over. You may want to concentrate on text (blogging), audio (podcasts) and images (Instagram) and nothing else to ensure that your content is focussed and consistent throughout. Adding content to lots of different services will just dilute your message and make you easy to forget.

2. Use the right equipment

A modern Android device is more than capable of letting you capture superb quality photos and videos plus it will also let you write on the move. For some tasks, though, it may be better to pay for dedicated equipment. Podcasting is an example where professional equipment will greatly improve the experience for your listeners.

3. Nurture your audience

Be realistic about what you write about and consider the possibility that your interests may not match those of many others. A smaller committed audience is much better than a larger disinterested one.

4. Share the workload

If you find that you are short of time and have found like-minded people online, consider collaborating with others to build an even better quality blog or podcast.

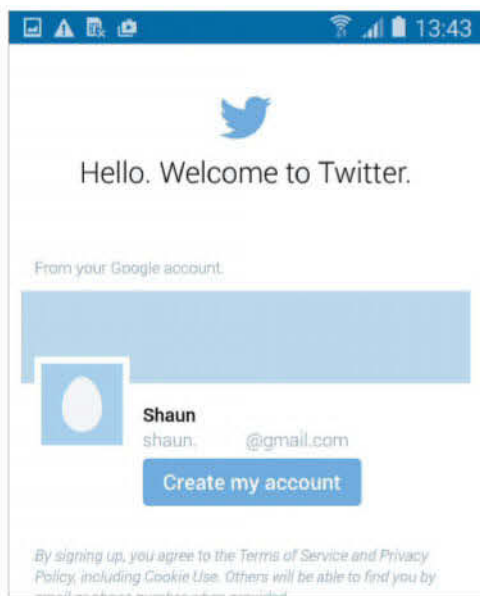
5. Open discussion

Don't expect 100% positive feedback. If you are doing this correctly, you will be making people think about what you have to say, which will naturally cause some dissenting voices.

A perfect Twitter profile

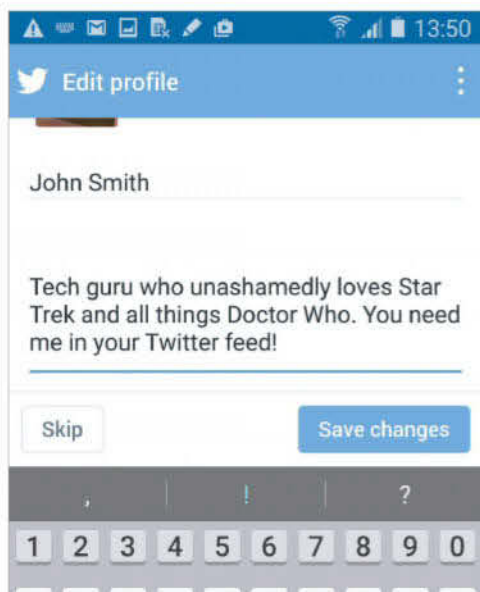
Twitter is the place to start building an online presence

Creating a Twitter profile is not difficult, but building one that is interesting enough to make people follow you is far from easy and so any tips are always useful. You can create everything you need to get started on your Android phone or tablet.



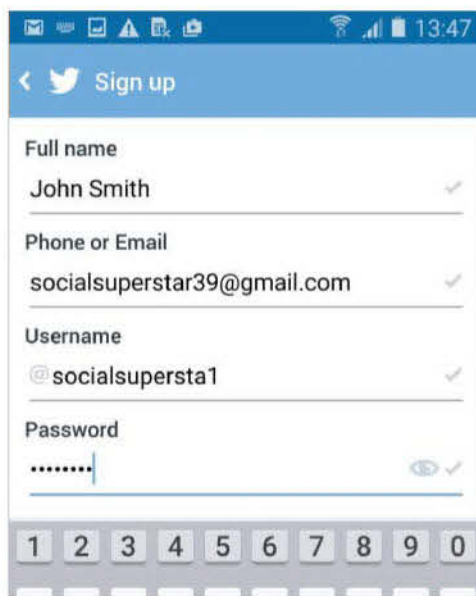
1 Create an account

Download the official Twitter app from Google Play and tap the Create My Account icon. Think about what details you want to use to set it up and try to be consistent no matter what service or account you are creating online.



3 Drag them in

Take time to create a profile that conveys what you are about and which will appeal to the audience you want to connect with. Some humour will be useful, but above all this is your main chance to offer your personality in one sentence.



2 Full contact details

Use your primary email address so that you can be emailed when direct messages and mentions occur on your account. It makes sense to respond when you have time in an efficient manner to increase interaction with your followers.



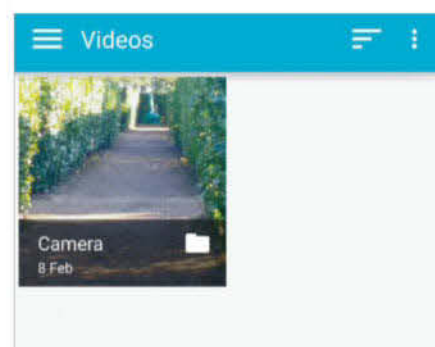
4 Use the visuals

Your profile photo defines who you are in an instant. Pick one that you intend to keep for a long time as it helps people recognise you. Changing it too often may confuse followers and break down your identity instantly.

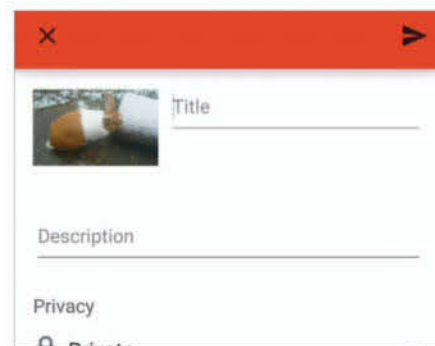


If you're confident enough to share your videos with the world, you can become an online sensation

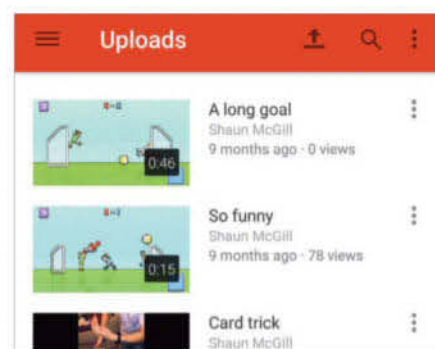
Embrace the joy of YouTube



1 A Google account is all you need to start publishing on YouTube. Simply select any video on your Android phone or tablet to upload it straight away.



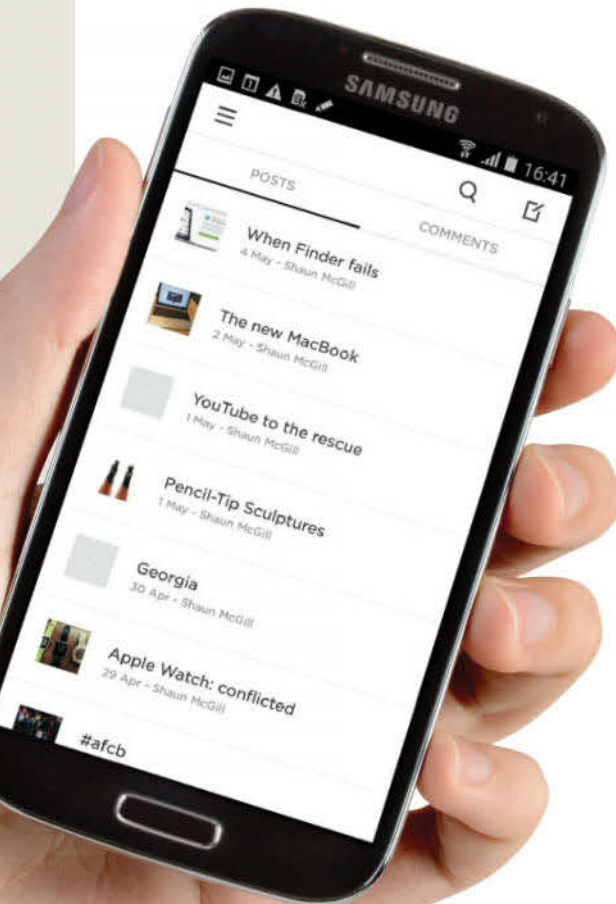
2 Take great care with titles and descriptions of each video. You will want them to be eye-catching, but also accurate enough to not deceive potential viewers.



3 It will take time to gain viewers, but with a bit of luck and just one inspirational video, you will gain new subscribers and gradually increase your audience.

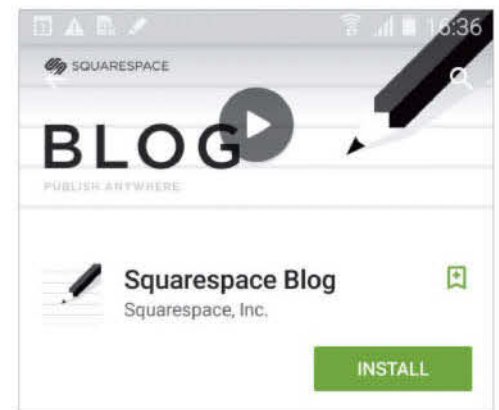
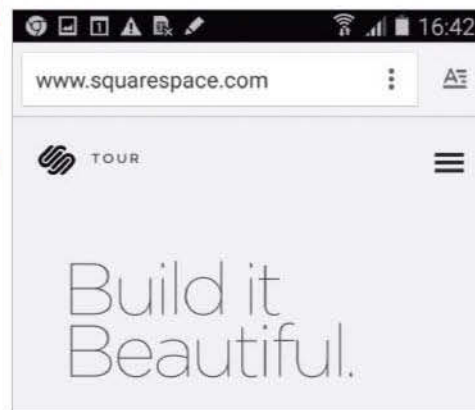
Boost social presence by setting up a blog

A blog is essential for tying your social activities together



Blogs are seen by some as outdated, but they could not be more wrong. Consider what social networks do and how they work, and you will soon see that they are merely conduits for people to communicate on. A blog is yours alone and can be used in any way you like. From the design to the text to the way you bring all of your social elements together, it is a cost-effective way to build a presence and to truly show what you are

capable of. Whether you create podcasts, produce fine art or anything else, a blog can be anything you want it to be and it is exceptionally easy to link to Twitter and Facebook accounts and to even host podcasts and images that you have produced. Many free web hosting options are available, but for a small monthly or yearly cost, you can take advantage of some truly stunning web software and design templates.

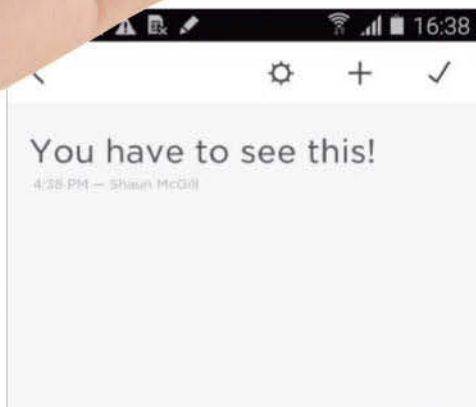


1 Choose a provider

Research your blog host. Check online reviews and carefully consider your limitations. If you know you will struggle to design a site, look for hosts who offer professionally-designed templates and don't choose on price alone.

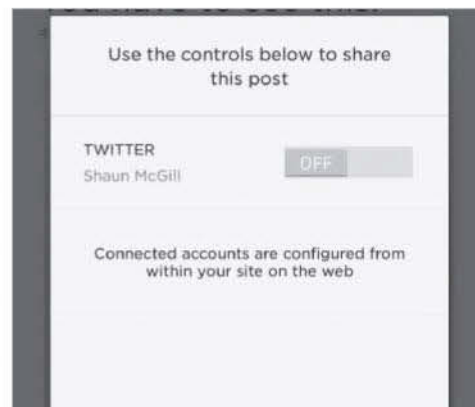
2 A companion app

Try to choose a host who offers an Android app that is capable of letting you create blog posts that look the same as when created on a desktop. You will want to add images and even videos to offer a rich reading experience.



3 Write posts anywhere

You will now be able to create blog content whenever the mood strikes or when an interesting event occurs. Your Android device will let you dictate text and also capture photos and videos when mobile. It's perfect for blogging at any time.



4 Make your posts social

The option to automatically add a social link to your latest blog post will either be available within the blogging software or through a freely available add-on. This will help you to quickly gain traffic which is consistent and repeating.



5 Quality in every post

Take time over every single blog post you publish. To gain readers who become loyal, and who are then more likely to follow you on social networks and listen to your podcasts, you will need to always produce quality content.

Message us!
Got any networking tips?
Let us know online

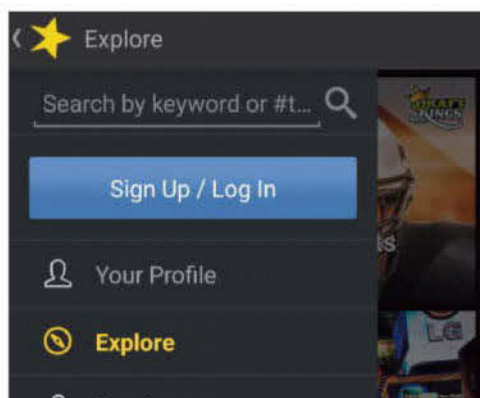


» masterclass
Social networking

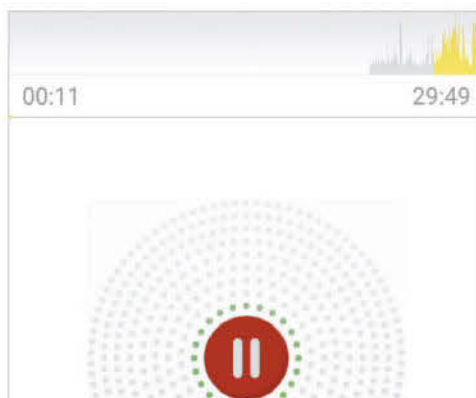
Create a quick podcast

You can record and publish a new podcast in minutes wherever you are

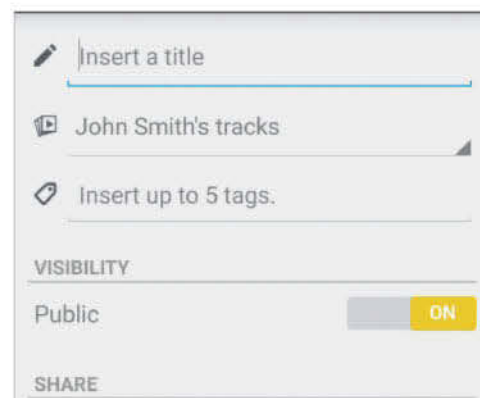
It used to be that you would require an expensive microphone and some sophisticated recording software on a desktop computer to make a podcast worth listening to. Although it is still beneficial to invest in specialised equipment if you are serious about podcasting, it is becoming much more popular for amateur podcasts to be made with just one participant and a phone. We will show you how to create a new podcast with the help of a free app called Spreaker – Radio & Podcast and also how to link your creations with your current social networking presence; it really can be done in minutes. Feel free to practice before you publish your first episode because experience makes a huge difference here and confidence is key to making people want to listen to what you have to say.



1 Download the app
Download the Spreaker – Radio & Podcast app from Google Play and sign up to the service. Ideally, you will want to use your Twitter or Facebook account to connect so that you can share your podcast episodes with just one tap.



2 Time to record
Tap the menu icon and then Create to see a simple recording screen. Now tap the Record button and create your audio podcast. Try using headphones with a built-in microphone for the best results and to block out background noise.

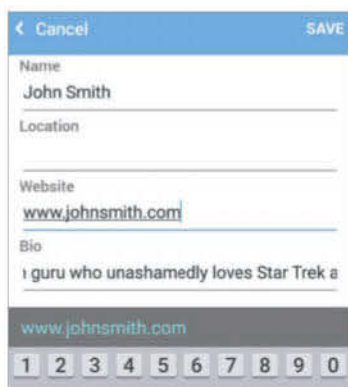


3 Attract new listeners
In the same way you should promote a YouTube video, make sure you enter an interesting title and that the tags embody the contents of the show. Also, tick each social network option to have links added to your social accounts immediately.

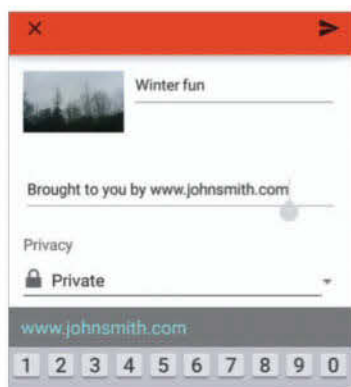


Bring it all together

All of your social network accounts and blogs should drive traffic between themselves to increase your audience



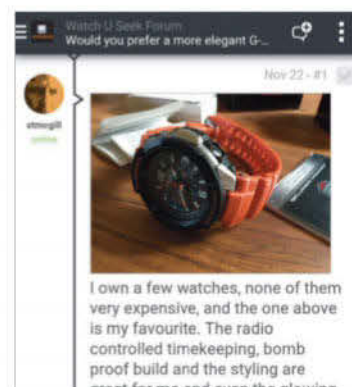
1 Share your blog
Add the URL of your blog to every social networking account so that people will know where to find you. Try to use your blog as the hub by which people can find everything else you publish, from videos and photos to blog posts.



2 Stamp your URL
Don't be afraid to add web addresses in YouTube and other places as well. This is perfectly normal practice and is one of the best ways to help increase your overall traffic to every service you use with very little effort.



3 Share details
You should be open online if you wish to gain a following. Add social networking links to your blog and as many details about yourself as you are comfortable with. You may even want to publish your email address, but beware of spam.



4 Provide link-backs
Include links to blogs, YouTube channels and Twitter or Facebook accounts in signatures on forums and elsewhere. Indeed, try to see every interaction online as an opportunity to promote yourself, but try not to overdo it or be too forceful.

App used » Google Keep Works with » Android 4.0 and up

Add labels to notes in Google Keep

Android's default note-taking app has gained two new features to sort posts and set repeat reminders

Google has added two new features to its Evernote competitor: labels and reoccurring reminders. While the benefit of being able to set repeat reminders is self-explanatory, you may wonder why you need labels – especially when you can already sort notes in so many other ways.

However, labels let you mark notes, no matter whether they are shopping lists, photos or audio clips, under one banner, such as Personal, Work, or Inspiration. You can then view all related notes more easily, as well as sort them further by pre-existing filters, including file type or by colour.

However, whereas repeat reminders is neatly integrated into Keep, sorting them by labels isn't as intuitive, so you will need our guide to get started. To ensure you can use these new features, first go to Google Play and update Google Keep to guarantee you are running at least version 3.1.

Add label

Tap the three-dot icon in the top-right of the screen and select Add Label from the drop-down list of options presented. If you wish to add or remove labels in the future, this option will be replaced by Change Labels after you complete the process

Deeper searching

Once Google Keep has become your go-to note-taking app, you can end up with a lot of posts – even once you've filtered them by label. This is why, after sorting by label, you can still tap the magnifying glass icon to refine your search by type, colour and more

Side-menu search

As well as quickly filtering posts by labels in Google Keep, you can still filter them by type from the side menu, including Notes and Reminders, as well as search for those notes you've sent to the Archive or Deleted

Sort by label

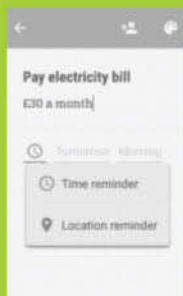
Rather than pressing on the magnifying glass symbol to search via label, tap the three-line button on the left to view the side menu. Under the heading that says Labels, you can jump to groups of notes, reminders, and more tagged with same label

Pick label titles

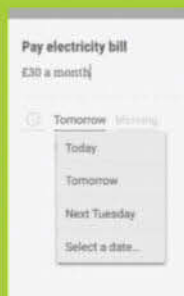
Once you've applied labels, they will appear at the bottom of your notes, lists, and images. You can add as many labels as you like to a post, but for them to be effective you'll want to decide on some key terms, like 'personal' or 'shopping'

Set a reoccurring reminder

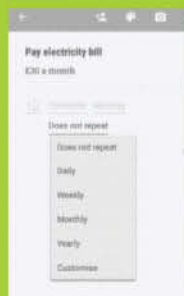
Another feature of the Keep update is that you can now set reminders to repeat



Create a document
Create a note or list in Google Keep, and then tap the Remind me button at the bottom of the screen. This is illustrated by a knot tied around a finger. A menu will then give you a choice between setting a Time or Location reminder.



Customise reminder
Location reminders will repeat automatically whenever you enter a place, so enter the name of the location and a repeat reminder will be set. For a Time reminder, you will be prompted to set the date and hour, then go to the next step.



Set repeat
Beneath the date and hour setting for a Time reminder is an underlined phrase: Does Not Repeat. Tap this for a list of options to set a reoccurring reminder, such as Daily or Monthly, or you can fine-tune it even further by selecting the Customise option.



App used >> SMStagger Works with >> Android 4.1 and up

Schedule texts with SMStagger

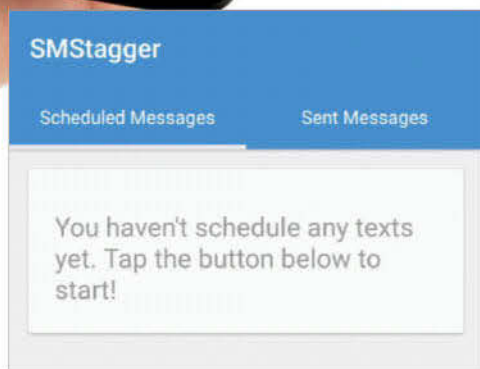
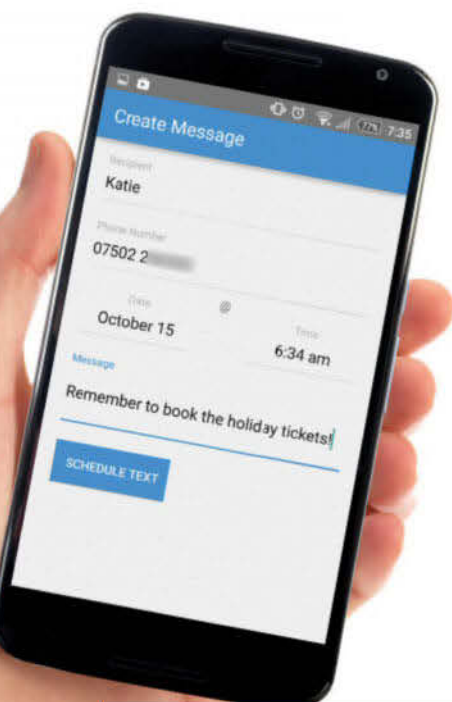
Set this app to text friends on their birthday and keep a record of the messages you've sent

Android users are spoiled when it comes to the amount of apps at their disposal to help set up appointments and reminders, but not so much when it comes to scheduling text messages.

SMStagger is renowned for being one of the better apps on the Google Play store that completes this task with relative ease. It is very similar to how a

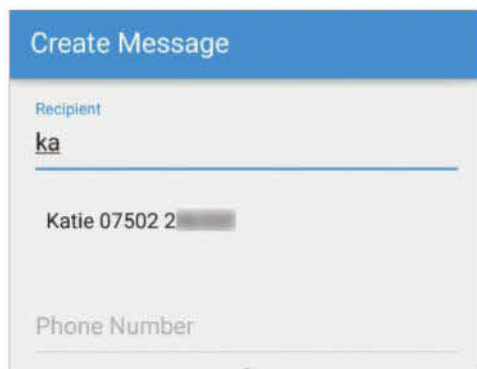
typical scheduling app works, in that SMStagger gives you all the tools to create a list of text messages that you want to send to contacts; no matter if the message you want to send is tomorrow, or even in six months time.

But there's more. What then helps take the app to the next level is being able to keep a virtual vault of absolutely everything that you've sent to a contact, which is ideal for later reference. If this sounds like something you could benefit from, use the following steps to start scheduling your text messages in advance with the SMStagger app.



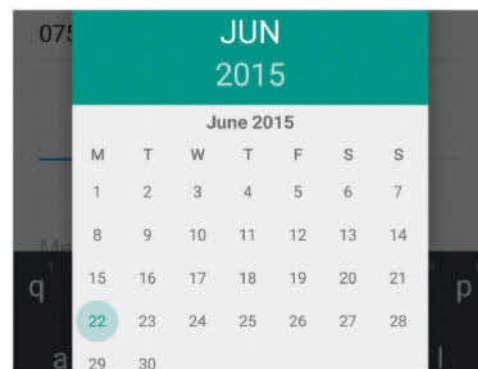
1 Start from scratch

When you first open SMStagger, a blank menu will greet you. All the texts you schedule will be listed here, but a swipe to the right will open the Sent folder; to schedule your first text press on the + button that's provided in the corner.



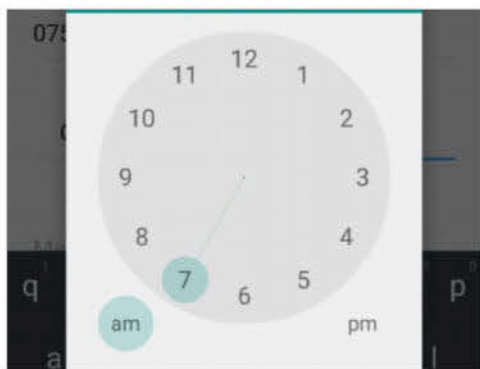
2 Add a recipient

Press on the top bar to start. Go ahead and add the name of the recipient you want to send the message to. You'll find that the app links in with the Contacts app on your device, so you should be able to find a saved contact to add.



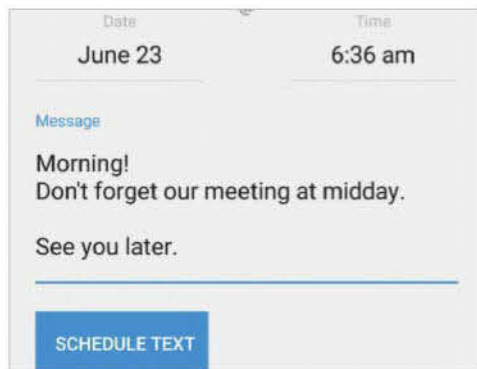
3 Set a date

One of the best things about the app is that a scheduled message can be sent in the future, within reason. Select the Date option that's provided and choose your desired sent date from the calendar view before confirming.



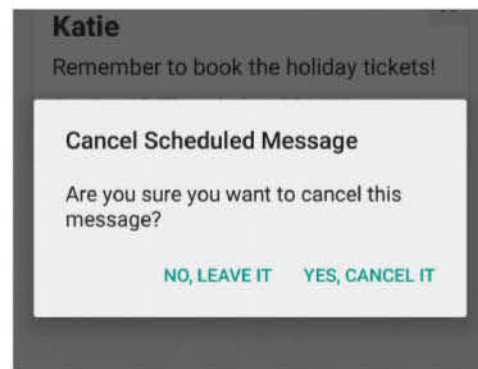
4 Select a time

You can also choose to send your message at a set time. Select the Time option and use your device's built in clock to select a time. Confirm this option once you're done and then head back to the message screen.



5 Type your message

Use the box at the bottom of the screen to add details of your message. It's best to keep the messages concise to make sure they reach the recipient at the correct time. Press the Schedule Text button at the bottom to save your message.



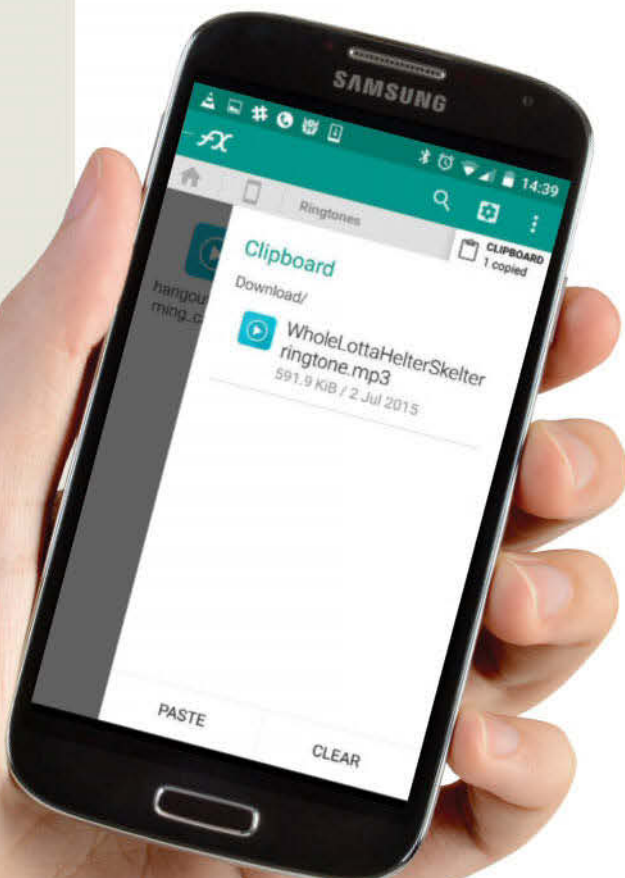
6 Manage texts

As you add messages, you'll soon fill up your scheduled list. You can remove a message by long-pressing it and choosing to remove from your schedule. You'll also be prompted when one of your scheduled messages is sent.

App used >> ZEDGE Ringtones & Wallpapers Works with >> Varies with device

Set your favourite tune as a ringtone

Those default ringtones are dull, aren't they? It's time to add your own...

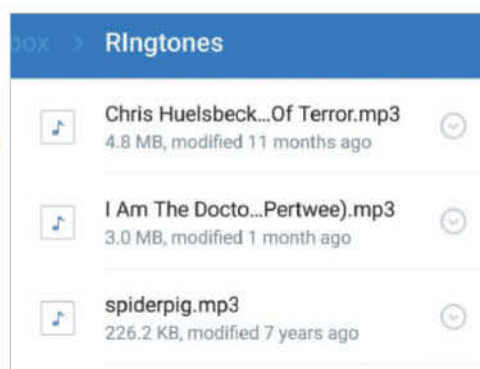


There is no denying the fact that the default ringtones packaged with new devices just aren't individual enough. Not only this, often they're actually quite inadequate as effective ringtones.

The solution, of course, is to set your own custom ringtone. This might be a segment of a favourite song, or perhaps a sound effect from a movie. Better still, you're not limited at customising ringtones – notifications and

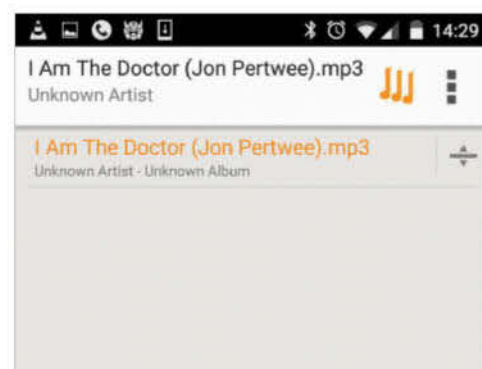
alarms can also be enhanced with short MP3 files. After all, it's far better to have a phone ringtone, alarm noise and notification alert that you will react to, rather than one that you're prone to ignore.

Make your alerts and notifications fit for purpose! All you need to get started is the MP3 file of your choice, cropped to 30 seconds of your favourite segment (perhaps the chorus or a riff, rather than the intro).



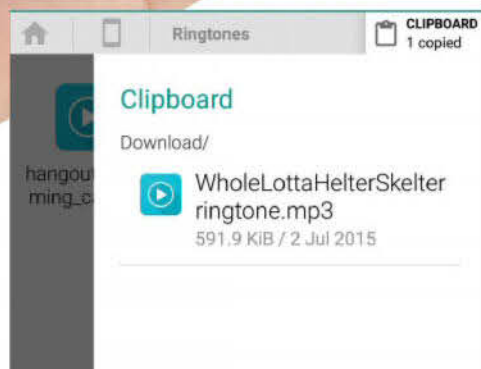
1 Select and crop your MP3

Begin by selecting an MP3 file and cropping it to the required length if necessary. To crop the file you can use an app like MP3 Cutter, or a browser-based tool like <http://mp3cut.net/>. Once you're happy, copy to your phone via USB cable or sync via your favoured cloud app.



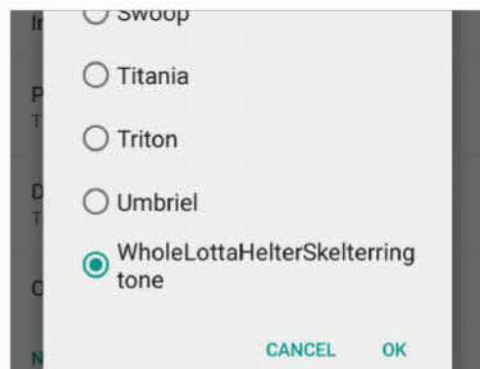
2 Check the sync

Has the MP3 synced to your phone? Open Dropbox, Google Drive or whichever cloud solution you use and check that the file is available. Once you've done this, confirm that it will play on your device, as encoding issues with cropped MP3 files can prevent successful playback.



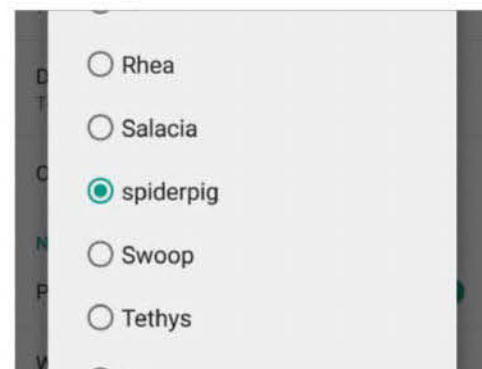
3 Use the right folder

For the ringtone to be detected by Android, you will need to save it in the correct folder. Whether you're copying via USB or you have synced it via the cloud, use a file manager like FX to copy the file into the Ringtones folder in your Android's main storage.



4 Add your MP3 ringtone

You're now ready to set the file up as a ringtone. To do this, open Settings>Sound & Notification and select Phone Ringtone. You should see the chosen ringtone listed (they are displayed alphabetically) so select it to get a preview and tap OK when you're happy.



5 Set custom options

It isn't only your ringtone that you can customise. Android's alarm clock and audible notifications can also be personalised, and the process is just as simple as adding a new ringtone. Before you start, however, give some thought to the chosen MP3, making sure it is fit for purpose.

Set an individual ringtone for each of your contacts

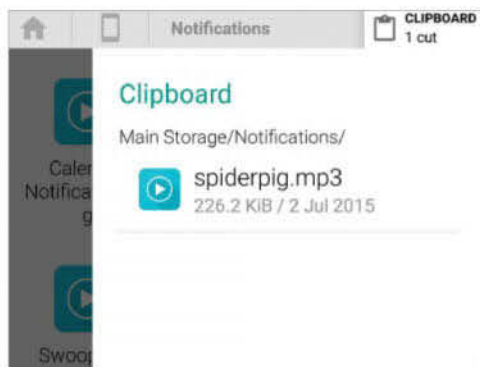
1 Choose suitable ringtones
Select a ringtone that suits the contact, so you know who is calling without looking.

2 Trim if necessary
Always make sure that you have the right part of the song saved as an MP3 file.

3 Set the custom ringtone
Open Contacts>your contact>Set Ringtone in order to select the desired MP3 ringtone.

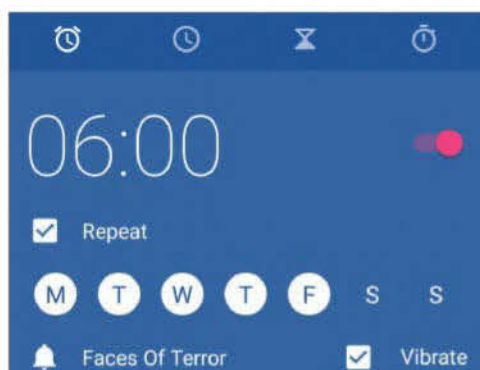
4 Ringtones for people
Note that you can only set a custom ringtone for a particular person, not their various numbers.

5 Wait for the call
When that contact calls, their individual ringtone will play, so you'll know who to expect!



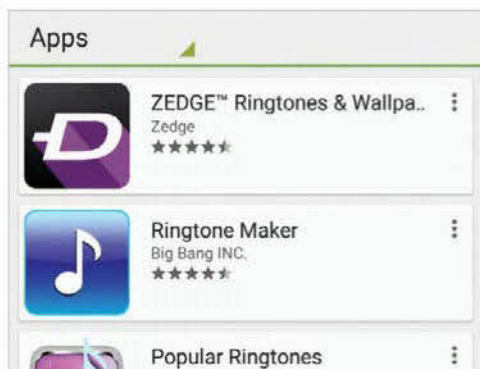
6 Add a custom notification

To give your email, SMS and other app alerts a new life, copy the chosen MP3 file into the Notifications folder in your Android device's main storage. Next, open Settings>Sound & Notification>Default Notification Ringtone and select the new MP3. Tap OK to confirm.



7 Wake up in the morning

Choose a suitable MP3 alarm and trim it to size before copying to the Alarms folder in the main storage. Select Clock>Alarms and tap the chosen current alarm to display the list of alternatives. Select your new alarm tone and then do a tap on OK to confirm the selection.



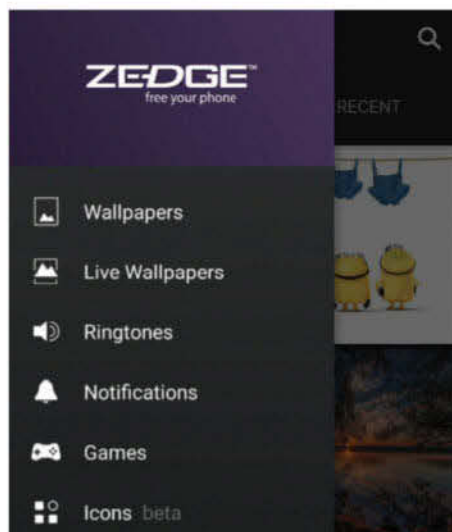
8 Customise your ringtones

Ringtones, notifications and alarms should be pretty simple to change manually, but if you have problems then head to Google Play where you will find various well-regarded apps that do all of the heavy lifting for you, leaving you with the job of selecting your favourite ringtone.



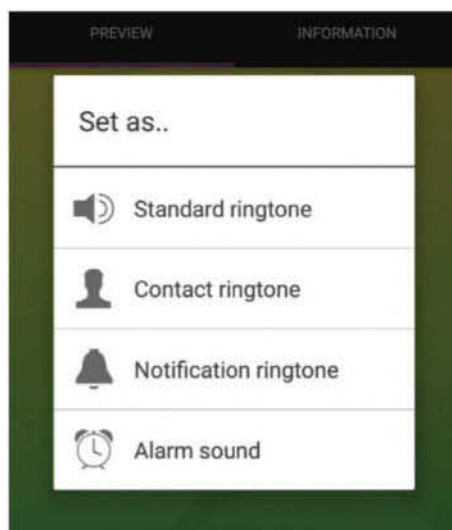
Ringtones & alerts in one app: ZEDGE

Not keen on copying and pasting MP3 files from your PC? Try a third-party ringtone app like ZEDGE to do the work for you



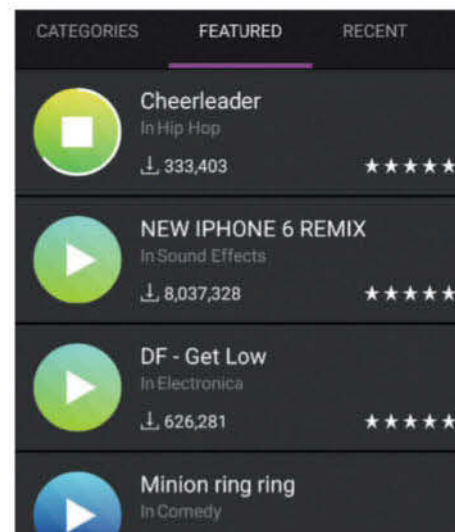
1 Install ZEDGE

Open Google Play and search for ZEDGE. This is a useful app that manages customisation on your Android device, from ringtones and notifications to wallpaper. Once installed, open the app to view the menu, where you will see entries for Ringtones and Notifications.



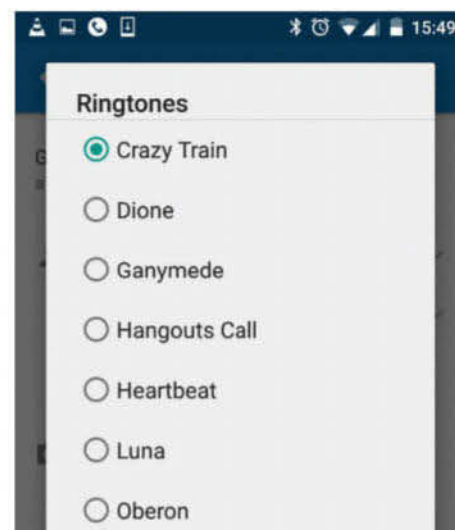
3 Set a new ringtone

With a ringtone selected, tap Download and then Set. You'll be asked to set a standard ringtone, alongside options to set contact and notification tones. You can also set the tune as an alarm. If your choice is made, you can exit the app – it's that simple!



2 Change your ringtone

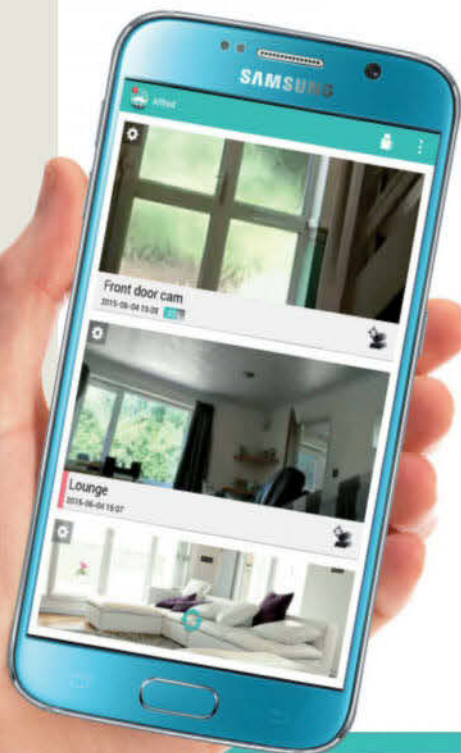
Ringtones are split into categories, but you can also look at Featured ringtones as well as Recent and Popular selections. You can preview tones in the list view, as well as tapping them to open and get a full preview where you will also find sharing options.



4 Confirm the ringtone

If you're curious as to whether ZEDGE has set a new ringtone or alarm, open Settings>Sound & Notification and check the name of the displayed ringtone (for alarms, look in Clock>Alarms). Usefully, MP3s added with ZEDGE will remain on your device after uninstalling.

App used >> Home Security IP Cam - Alfred Works with >> Varies with device



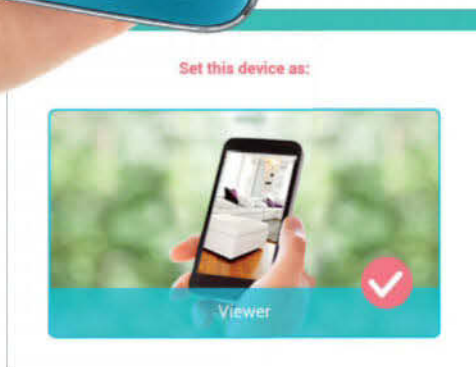
Turn any device into a 007 spy camera

Build your own security camera system using Android devices and the Alfred app

If you want to keep an eye on things at home while you're at work, there's a far cheaper and easier alternative to setting up dedicated security cameras. The Alfred app links two Android devices – one that is acting as the camera, the other which is acting as a viewer – via a Google account. This means that you can see the live view from the

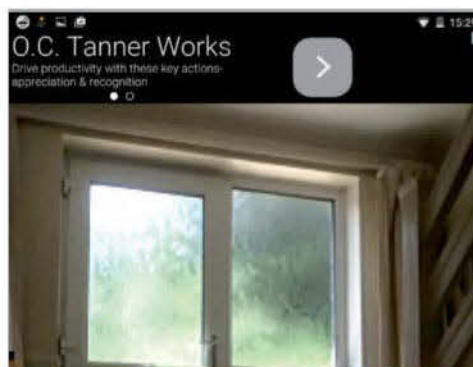
camera on the other device. The app is completely free (although it is ad-supported) and it's an ideal way to repurpose an old phone you no longer use.

The real beauty is that you can add as many cameras (and viewers) as you like, to create a sophisticated security system tailored to your needs. Most things can be controlled remotely from the viewer and you can even conduct a two-way conversation through the camera device – so you could use it as a baby monitor. What's more, a motion detection option will send you a notification when triggered and take a series of photos.



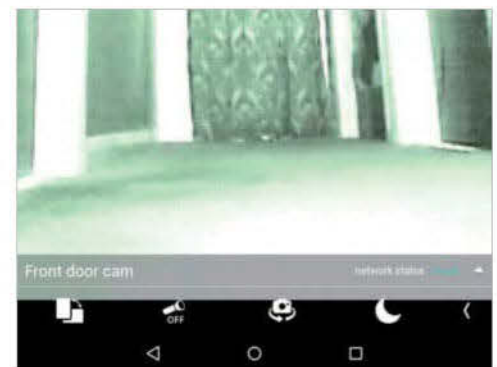
1 Camera or viewer

Download the Alfred app onto two devices. Select one to be a viewer and the other a camera. Log into the same Google account on both devices, so they can be connected. Check you can see the view from the camera on the viewer.



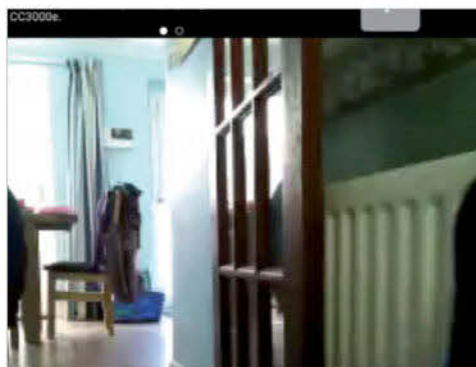
2 Place the camera

Place your camera device to watch an area. You could put it in a mug to keep it upright, or go to the trouble of hiding it. Note that the camera still works when the device is asleep. Make sure the audio is turned on if you want it.



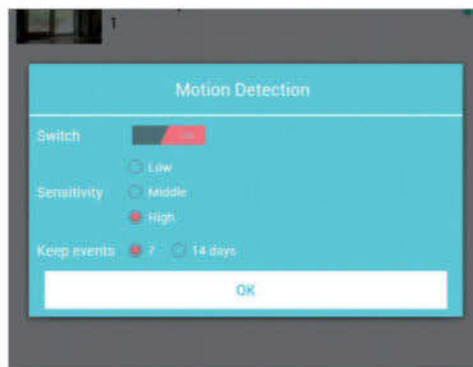
3 Viewer options

The viewer device has a few options. If the view is oriented wrongly, tap the rotate icon to correct it. The LED light and night vision options can be useful in a darkened room. You can set night vision to Automatic in the camera settings.



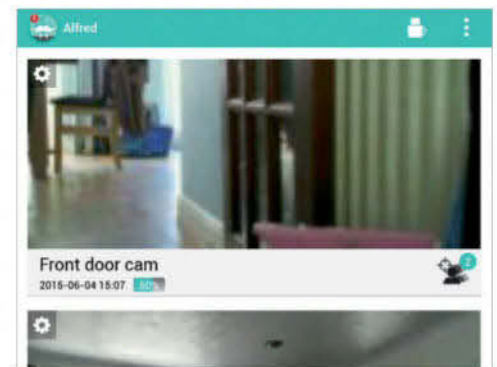
4 Look both ways

Tapping the camera arrows icon switches between front and rear cameras, so you could use one device to cover two areas. Holding the mic button lets you talk through the remote device, to speak to a delivery man or deter an intruder.



5 Use motion detection

Motion detection can be activated on the camera or viewer and there are three sensitivity settings. When triggered, it takes photos and sends a notification to the viewer device. Events and photos are stored for seven or 14 days.



6 Add extra cameras

You can add more devices (including iOS ones) to set up a more elaborate system. Tap the cog icon for a camera in the main menu to rename it. You can also set up a 'trust circle', to share the camera's feed with another Google address.

Get a feel for Android M's Google Now on Tap today

Google Now's new location awareness feature can answer complex questions

When Android M is officially launched, one of the most exciting new features will be **Now on Tap**. This will make the information Google Now offers you more relevant based on context, such as knowing the showing times for a film mentioned in an email open on your screen. However, you can sample this feature right now using Google Now's new Location Aware Search. For instance, if you ask 'how tall is this,' Google Now will scan your location, and tell you the height of a nearby landmark. This tutorial will take you through how to set up Location Aware Search on your device and the kind of results Google Now will be able to offer.

"It will attempt to make more accurate searches"

Is it working?

Three things that you need to make sure of in order to get this Android M-style feature working on your mobile



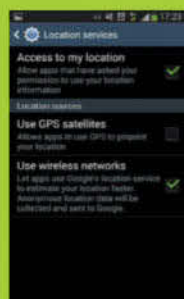
Latest version

If you don't have Google Now on your phone because you're running an older version of Android, download the Google Now Launcher onto your mobile and set it to Always. Swipe right to bring up Google Now, although you don't need it up to search.



Google Search

You'll also need the latest version of Google Search downloaded on your phone. Go to Google Play and search for Google. As it should already be installed, click Update to get the latest version, which will be compatible with Google Now's contextual searches.



Location settings

If you currently have your location settings turned off, then Google Now won't be able to find where you are and therefore won't be able to make an intelligent search. Head into your settings and enable location tracking so that everything can work.

Ask the question

Say 'OK Google' and then ask your question. It can be as vague as 'What church is this?'. The app will then pinpoint your location, find the object you are most likely to be talking about and provide a result in Maps or perform a web search

Result options

Google Now will jump to what it thinks is the most appropriate option for providing results. If it can locate the relevant answer on a map it will show you its position. If it can't, it will bring up a Google search list

Save time

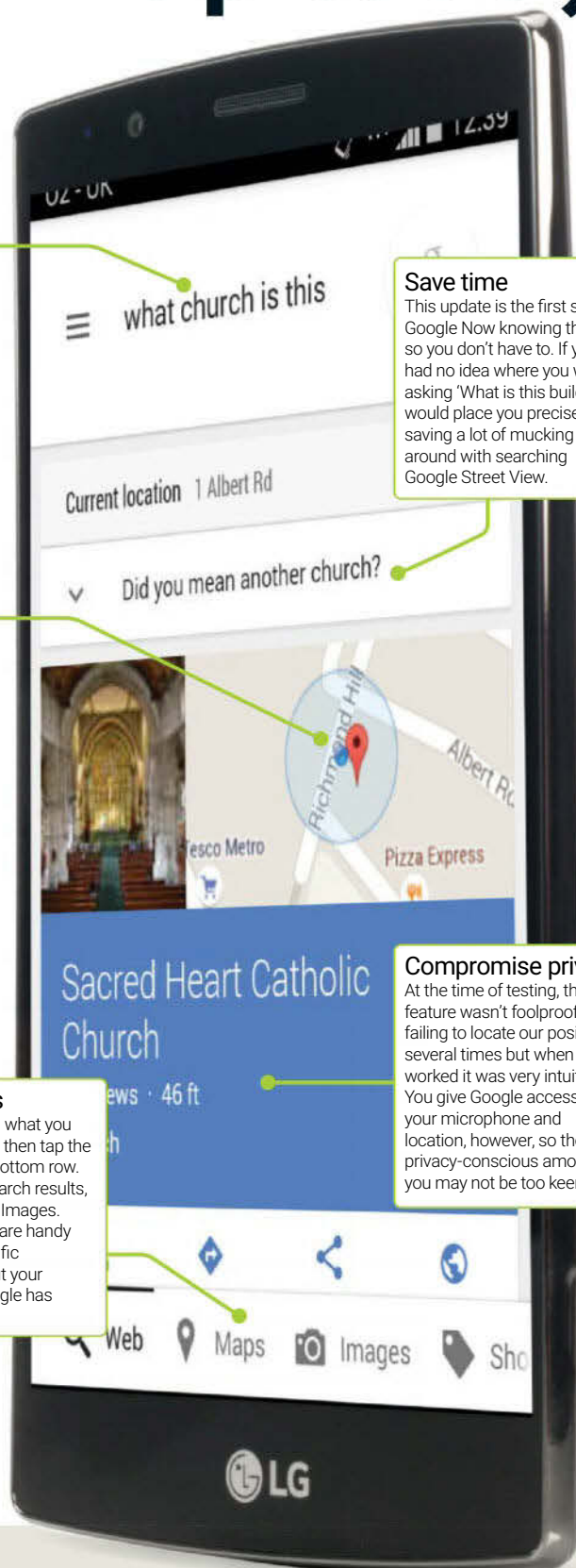
This update is the first step in Google Now knowing things so you don't have to. If you had no idea where you were, asking 'What is this building?' would place you precisely, saving a lot of mucking around with searching Google Street View.

Compromise privacy

At the time of testing, this feature wasn't foolproof, failing to locate our position several times but when it worked it was very intuitive. You give Google access to your microphone and location, however, so the privacy-conscious among you may not be too keen

Filter results

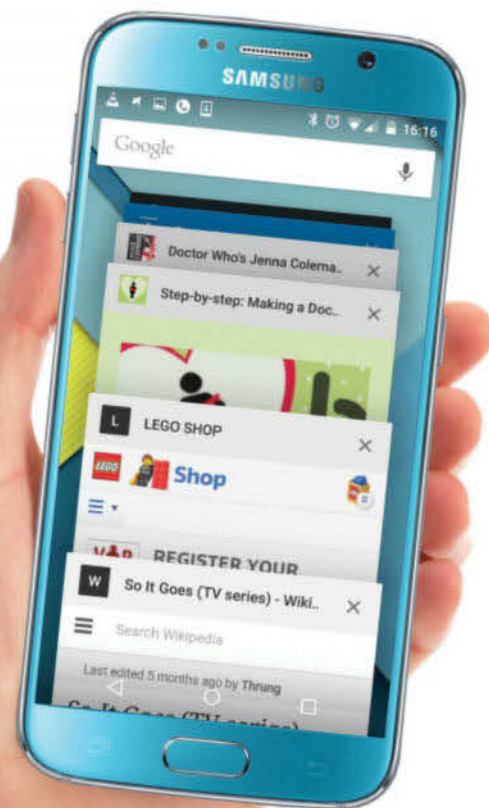
After it has found what you are after, you can then tap the icons along the bottom row. These include search results, a map or Google Images. These shortcuts are handy for locating specific information about your search once Google has located it for you



App used » Chrome Works with » Android 5.0 and up

Merge and unmerge Chrome tabs in Lollipop

Stop multiple Chrome tabs from littering the Recents app switching view

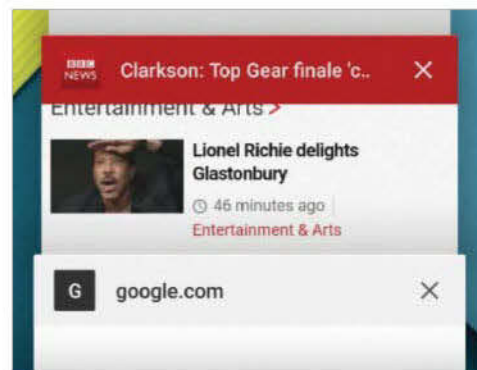


What's in your Recents view? If you're using Android Lollipop, probably a lot of open tabs. While the revised Recents menu makes it easier to switch back to a previously-used app, the way it treats Chrome tabs as individual apps can prove a little frustrating.

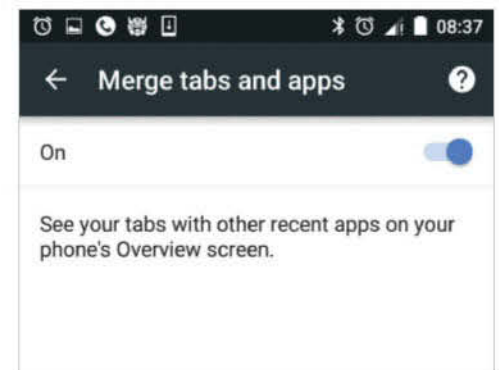
Every web page you recently viewed and have left open in Chrome is also listed in Recents. To get around this, we can disable a setting in Chrome. The result will be merging

the tabs into Chrome, reducing the number of items you see in the Recents view and making it much quicker to use.

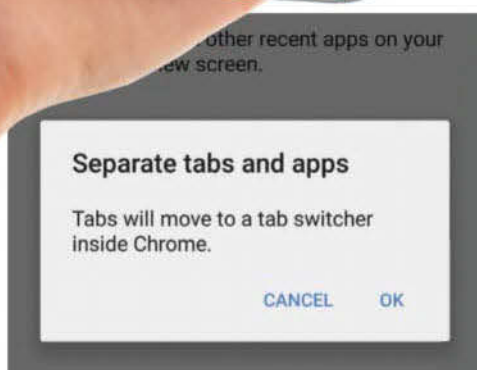
The open Chrome tabs, meanwhile, will remain accessible, from within the app itself, just as with the previous version of Android. Does this make things more usable? Well, it's all a matter of preference, really. If disabling the Chrome tabs in Recents doesn't work for you, it's easy to re-enable.



1 View the Recents list
You can see what we're talking about by using your phone for a few hours and then tapping the Recents button. Dozens of apps will be listed, and among them, if you've been browsing the web, Chrome tabs. Fortunately removing these tabs from the list is nice and simple.



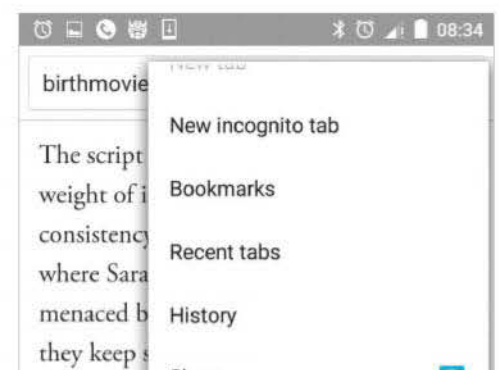
2 Open the Settings screen
To manage how the Chrome tabs are displayed, begin by opening the app and finding the menu in the top-right corner. From here, tap Settings near the bottom of the list. Look for the 'Merge tabs and apps' option under Basics – this will be set to On by default.



3 Disable tab merging
Tap 'Merge tabs and apps' to change the state, sliding the switch from On to Off. A box will be displayed, informing you that a tab switcher tool in Chrome will be activated for future tab switching. If you're happy for this to happen, tap on the OK area to continue.



4 Check the Recents view
With this done, tap back to exit and then open the Recents view. You should find a collection of apps with only one instance of Chrome. You'll find that by opening the Chrome menu you can use the Recent tabs option to view any tabs that previously appeared in Recents.



5 Switch tabs in Chrome
Switching from one tab to another in the Chrome app is simple enough, but it is a bit slower. In the Recent tabs view, scroll through the list and tap the one you want to open. If you are signed into Chrome on your desktop computer, tabs from that will also be displayed.

Manage and close tabs in the Recents view

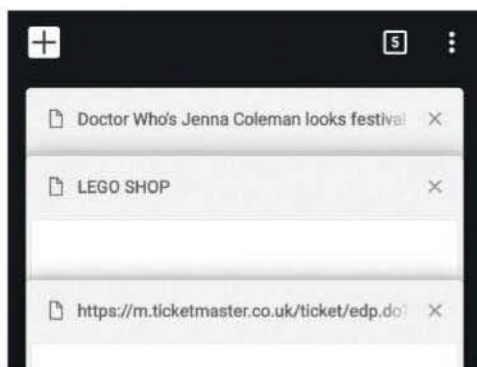
1 Browse your open tabs
In Recents, scroll through open tabs by drawing your finger up and down the display.

2 Too many tabs? Close them!
Each tab has an X in the top-right corner. Tap this to close the tab.

3 Swipe to close
You can also dismiss tabs by swiping sideways, either left to right, or right to left.

4 Close multiple apps
Closing multiple apps isn't possible; keep swiping to dismiss apps and tabs you don't want.

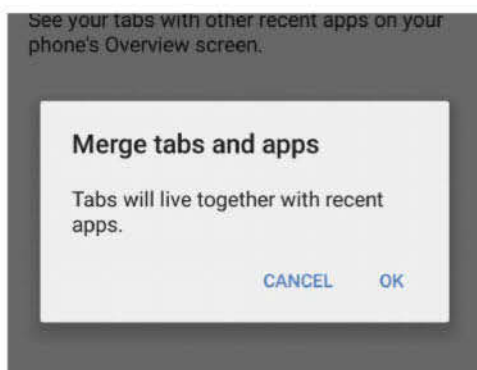
5 Pin apps in Recents
Is there an app or game that you wish to keep open? Simply tap the Pin button.



6 No tabs? Tap a button!
If no recent tabs are listed in the Chrome app, simply tap the button at the top of the screen to display all current tabs that have been merged back into the browser app. With this out of the way, scroll through these to locate the tab that you want and then tap it to view.



7 New tab in Chrome
If you find that you need to open a new tab in Chrome, tap the + button in the top-left corner and then open the URL of the site you wish to visit. If there are any favourites that you have set up in Chrome, these will also be displayed here for you to quickly tap to open and enjoy.

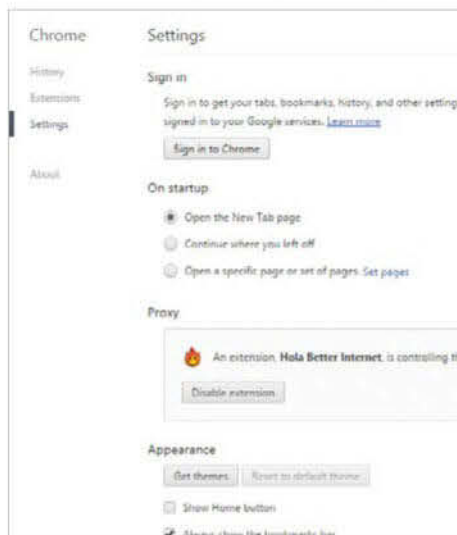


8 Revert your Chrome tabs
If you preferred things the way they were before you disabled tab merging, you can easily revert things by opening Chrome>Settings>'Merge tabs and apps' and switching it back to On. You'll be asked to confirm this, so click OK if you're happy to proceed.

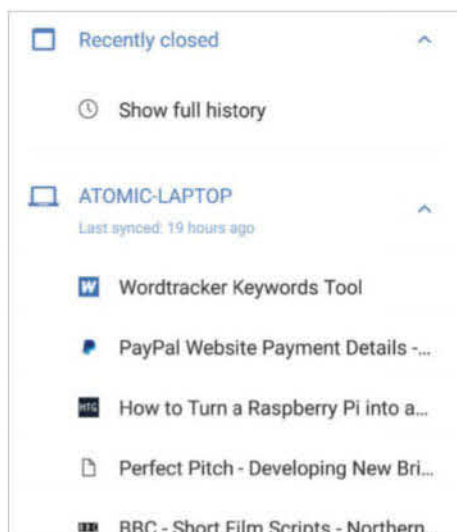


Read websites on your PC in Android

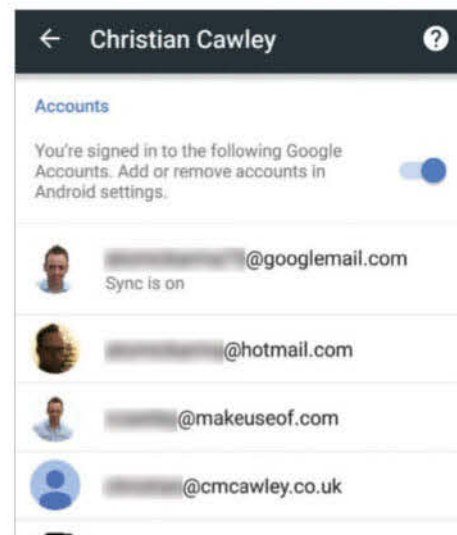
By signing into Chrome on your PC and in Android, you can continue reading the same page when you are on the move



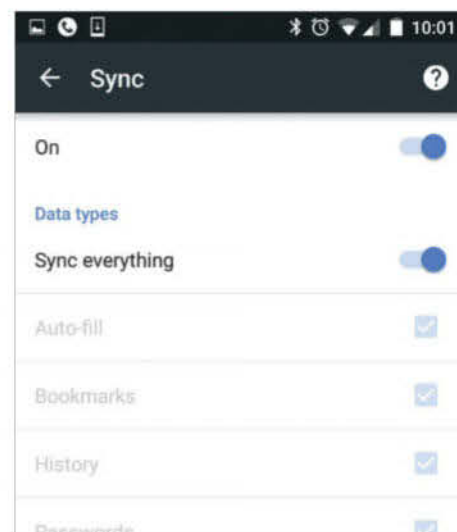
1 Sign in for Desktop
With Chrome installed on your Windows, Mac or Linux PC, sign into the browser using the Menu>Settings option. If you're already signed into Google services such as Gmail, your login will be picked up from that so you'll only need to add your password to proceed.



3 Read your synced tabs
Now that all of your desktop tabs are happily synced to Android, you can pick things up exactly where it was you left off. This feature is particularly useful if you're heading out to catch a train or bus, as you can read them as you start your journey, or preferably in comfort as you travel.



2 Browse the internet
Your internet activity will be recorded by Google, so any reading that you have started on your desktop computer can be continued on the mobile version of Chrome. On your phone, open the browser then Settings>your email address and confirm Sync is switched On.



4 Sync tabs and privacy
As convenient as having your tabs synced might appear, it can prove to be embarrassing if someone looks over your shoulder at the wrong moment and sees website tabs you would prefer remained private. If this is something that concerns you, disable tab syncing to maintain privacy.

Apps used >> MRU (Most Recently Used) Works with >> Android 5.0 and up

Get an Android M-like Most Recently Used bar

Quickly access your latest apps with the nifty MRU widget

When Android M arrives this autumn, it will include a new-look app drawer that allows you to quickly open your recently used apps. If you can't wait that long for super-fast navigation around your phone, you can try this feature today by installing the MRU (Most Recently Used) widget on your homescreen.

MRU isn't quite the same as the Android M feature, but this widget updates in real-time, showing you the last five apps you used so you are never too far away from your favourite or most commonly-used apps. It also means that you don't need to clutter up your homescreen with lots of shortcut icons, leaving it free for more visually interesting widgets and wallpapers. This tutorial will show you how to get the bar and what it looks like once it is installed on your mobile.

“The widget shows the last five apps used”

Get your perfect look

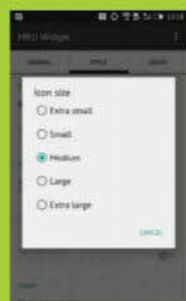
Android is all about being together but not the same, so here are some personalisation options to make your MRU widget perfect for you



Change your background
If the white background doesn't fit in with your colour scheme, there is a Style section in the Settings where you can tap on Background Colour and have an enormous range of colour options to select from.



Style your labels
If you've changed the background bar colour, you might also want to change the label text. Head into the Style settings and scroll to Label Colour. Change it to whatever you want and the names of your apps will duly change.



Icon size
If you want lots of your most recently-used apps to be on your screen but are a bit pushed in terms of available screen space, you can alter the size of each icon. In the Style settings, tap on Icon Size and then make your alterations to suit.

Press to activate

To add the widget to the home screen, press and hold the screen. You will see a menu option to add widgets. Tap on that and it will bring up a list of widgets. Find MRU and add it to your home screen.

View the favourites

As you use an app it appears on the bar, with your most recently-used one on the far left, pushing all the others one space to the right. This can be changed in the Settings but it probably isn't worth doing so.

Layout options

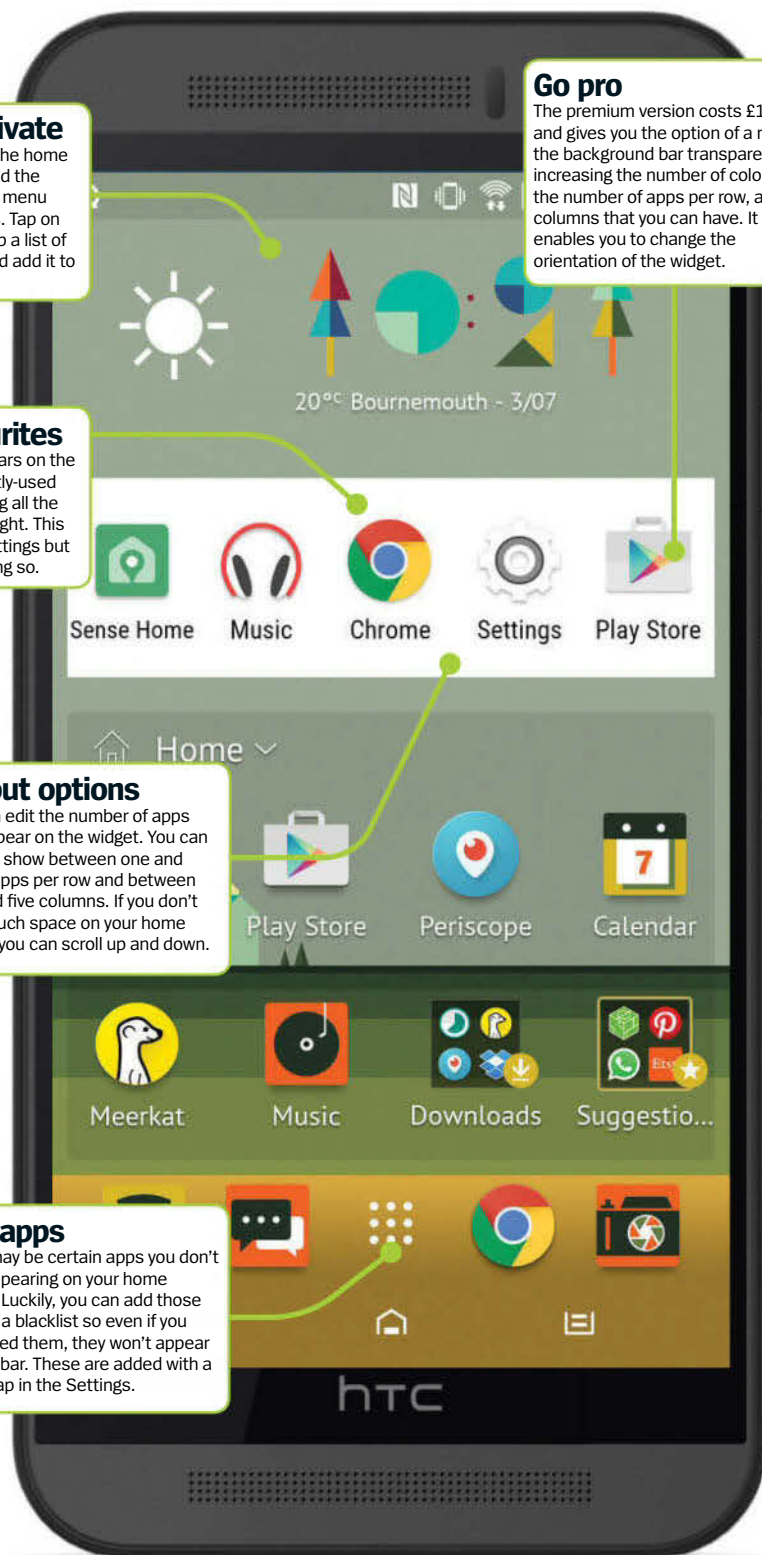
You can edit the number of apps that appear on the widget. You can set it to show between one and seven apps per row and between one and five columns. If you don't have much space on your home screen you can scroll up and down.

Ban apps

There may be certain apps you don't want appearing on your home screen. Luckily, you can add those apps to a blacklist so even if you have used them, they won't appear on your bar. These are added with a single tap in the Settings.

Go pro

The premium version costs £1.51 and gives you the option of making the background bar transparent, increasing the number of colours, the number of apps per row, and columns that you can have. It also enables you to change the orientation of the widget.



App used >> IF by IFTTT Works with >> Android 4.0.3 and up

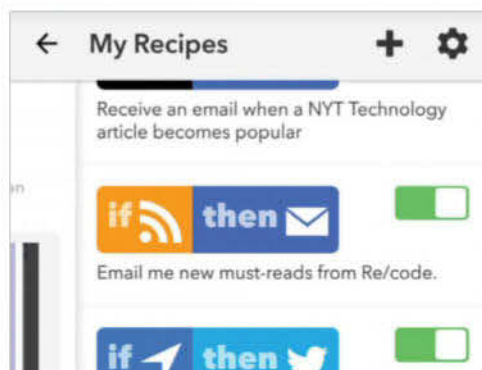
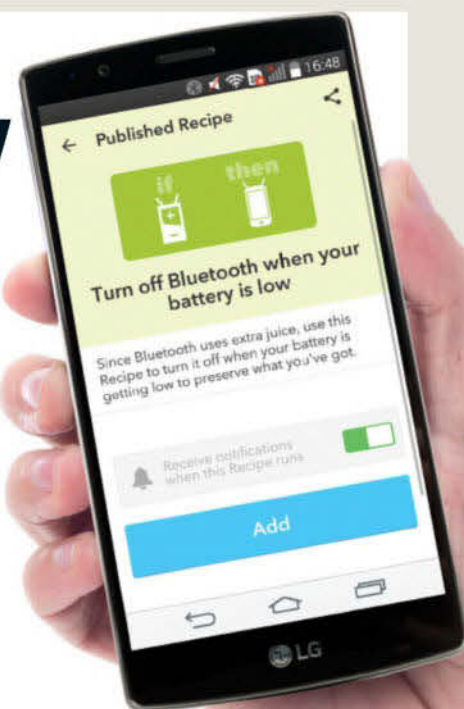
Boost your battery with IFTTT recipes

If you haven't had the power-saving Lollipop update, IFTTT's new features are here to help

The IF for Android app can now control your battery. The easy-to-use automation app was already pretty great, but now it can effectively bring Android Lollipop's Battery Saver Mode to older phones. While there isn't currently a recipe to restrict apps when power is low, it can shut down

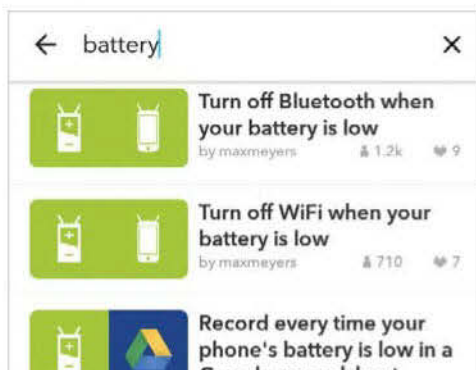
Wi-Fi and Bluetooth. If you already have Android 5.0, IFTTT also has recipes to send low power alerts to your PC and monitor when you charge your device.

If you're not familiar with the IF app or IFTTT online service, it ties actions to triggers, for example, turning off Bluetooth when the app senses your battery is low. IF doesn't just work with your battery, it works with hundreds of apps and online services to offer a simple alternative to Tasker. Before you read on, first download IF by IFTTT from Google Play and set up an account.



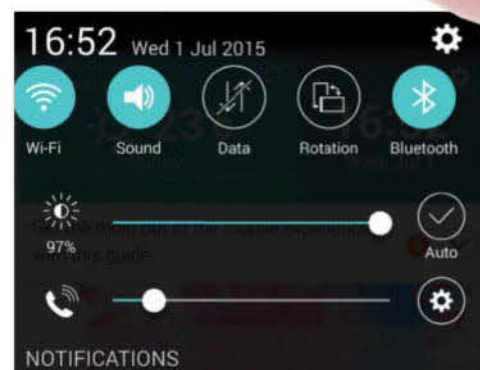
1 Search for recipes

In the IF app, tap the pestle and mortar symbol to open a side menu and tap the plus symbol to go to the Add a Recipe menu. Tap Search and look up Android Battery. Tap the one you want in the results, then press Done.



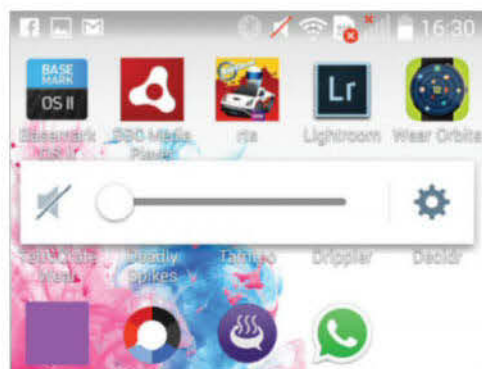
2 Get low power alerts

Try the recipe that sends a notification to your phone when you have a low battery (<https://goo.gl/SHcFtz>) or, to make sure you don't miss the alert, have it sent directly to your Android Wear smartwatch (<https://goo.gl/Orlmi4>).



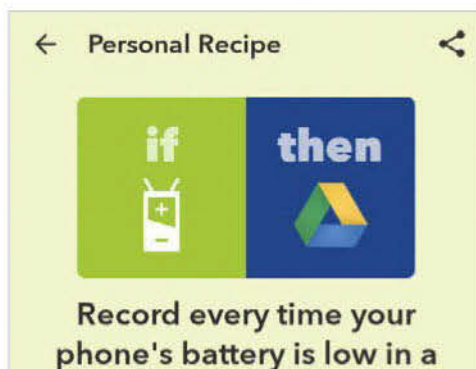
3 Turn off functions

Even when you're not using Bluetooth or near a Wi-Fi hotspot, these sensors sap your power. When your battery is getting low, IFTTT can automatically turn off Bluetooth (<https://goo.gl/93AMu5>) and Wi-Fi (<https://goo.gl/5jS1FF>).



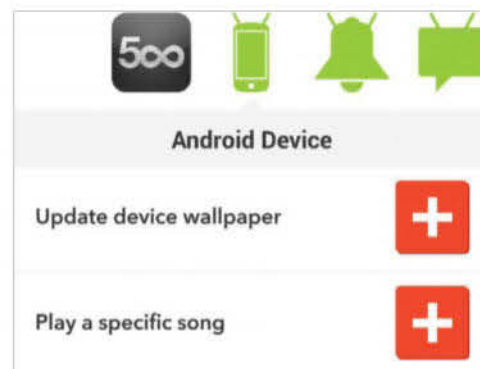
4 Mute when charging

There's a recipe to mute your phone when you put it on charge (<https://goo.gl/v1R6I4>). To save you adjusting the volume when you wake up, also install this recipe to unmute when you unplug (<https://goo.gl/yhu3s5>).



5 Knowledge is power

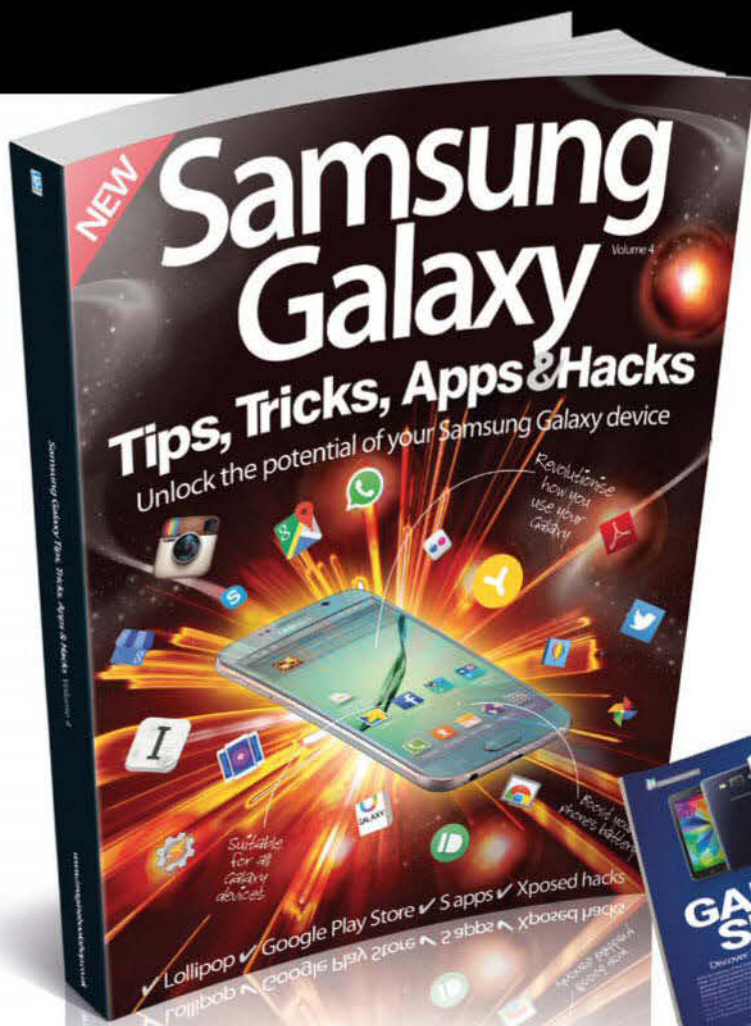
If you think you're charging your device too much, keep track with IFTTT. You can record every time your phone's battery is low in a spreadsheet (<https://goo.gl/Y9QjYx>), or keep a tally of how often you charge it (<https://goo.gl/WjHWH4>).



6 Create your own

Return to the Add a Recipe screen, press '+'. Choose a trigger and an action. We selected Android Battery, then selected Android Device and Update Device Wallpaper as the action to imitate Lollipop's orange Battery Saver Mode theme.

From the makers of **Android** magazine



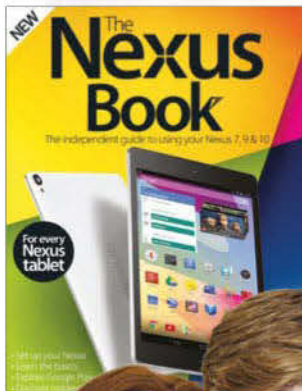
Samsung Galaxy

Tips, Tricks, Apps & Hacks

No matter what Galaxy device you have, this book will help you get even more from your phone or tablet. Packed with easy-to-follow guides to all the essential features, functions and apps, this is the perfect book to help you master your Galaxy.



Also available...



A world of content at your fingertips

Whether you love gaming, history, animals, photography, Photoshop, sci-fi or anything in between, every magazine and bookazine from Imagine Publishing is packed with expert advice and fascinating facts.



BUY YOUR COPY TODAY

Print edition available at www.imeshops.co.uk

Digital edition available at www.greatdigitalmags.com



Top mods and tweaks for your rooted device

Hacker Zone

Jargon Buster

Get up to speed with all the terms you will need to know when it comes to hacking your phone

OS

Short for 'operating system'. Often the Android ROM will be referred to as the OS – this just means the system files on the Android device that make up your user experience, and is similar to Windows, Mac OS X or Ubuntu on a desktop computer.

ROM

Stands for 'read-only memory'. In the context of Android, the ROM refers to all the files that make up the operating system that is installed on your device. Gaining root privileges allows for replacement of the standard ROM with a custom one.

Root

'Rooting' your phone gives apps access to parts of the OS that are normally hidden from consumers. This enables you to run more powerful software and install custom ROMs on your phone.

ROM Manager

An app available from the Android Market that enables you to install a whole new version of your OS with a single click. It requires a rooted phone to use and is ideal for those new on the scene.

Titanium Backup

This app from the Market enables you to back up everything on your phone – apps, data, settings and all. It means that you can restore your phone to how it was, even after you've updated or changed the ROM.

Unrevoked

Available from unrevoked.com, this is a one-click tool that can be used for rooting many popular HTC smartphones.

ADB

Stands for 'Android Debug Bridge'. ADB is mainly used for software development, but it also has some uses for hacking your phone. It can be used to push files onto the system folder, for instance.

Nandroid

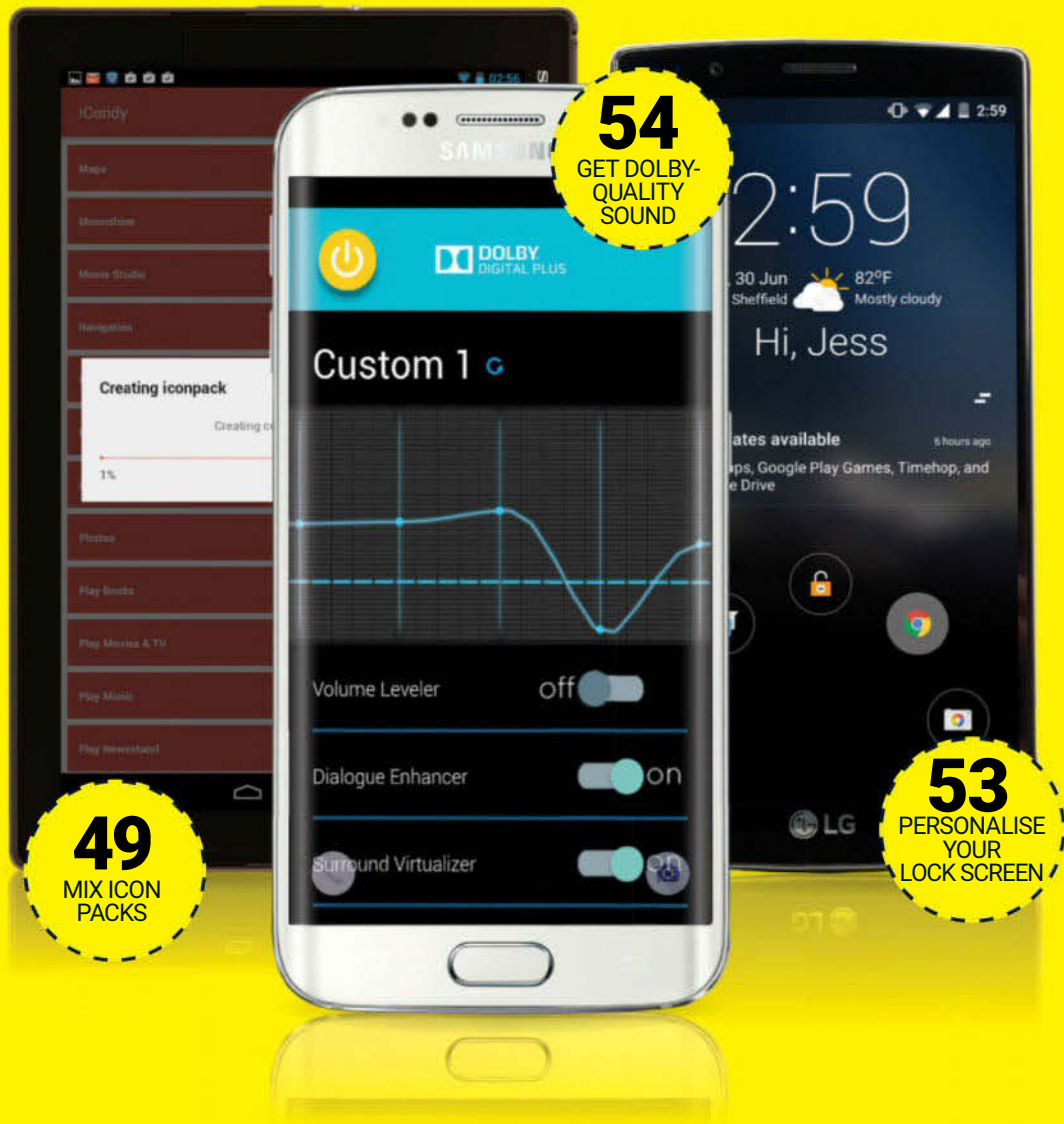
You might come across the phrase 'perform a Nandroid backup'. This means using a custom recovery tool to make a back-up image of everything currently on your phone: OS, apps, data, etc. It's very useful should you wish to restore your phone to its previous state later.

Radio

'Radio' refers to the software on your Android device that deals with making phone calls and data connections. Updating your radio version can bring better battery life and signal strength to your device. Some ROMs require the latest radio.

Flash

The storage in your device comprises flash memory, which is a type of solid-state storage. The terms 'flash' or 'flashing' mean installing some new software onto your device's storage.



49
MIX ICON
PACKS

54
GET DOLBY-
QUALITY
SOUND

53
PERSONALISE
YOUR
LOCK SCREEN

44 Hacking Tips & Tricks

Essential hacking advice, including how to get surround sound for Play Movies

46 Enable Wi-Fi for the G Watch R

Add Wi-Fi support to the smartwatch that the big Android Wear update forgot

48 Restrict permissions with XPrivacy

Decide what personal info and hardware apps can access

49 Mix and match icon packs

Use Icondy and Lucid Launcher to choose what icons you want to display

50 Tweak Lollipop with XBLast

Change up Android 5.0's visual and adjust build.prop settings with XBLast

52 Save battery by killing background services

Sweep your device for battery-hogging apps that you're unaware are running

53 Get a fully customisable lock screen

Personalise your lock screen to include app shortcuts, additional security, and even an iOS-style slider

54 Get Dolby-quality sound

Boost your Android's audio quality with this Dolby Digital Plus mod

56 Power-up Lollipop notifications

Get more info from Android 5.0 alerts with the updated version of XBridge

status update

Which devices are best for the hacking scene?

ZTE Blade S6

Rooted? Yes

Active Development:

Medium

The Blade S6 boasts great specs and a low price. But its MiFlavor UI is Marmite for many, so why not try hacking it and adding a new ROM?



LG G4

Rooted? Yes

Active Development:

High

The LG G4 has not been available for long, but it was quickly rooted. Unlock it now to try out new features, ROMs and apps.



Nexus 7

Rooted? Yes

Active Development:

High

Google didn't release Android M for the Nexus 7, so check the XDA Forums for Xposed modules that imitate M features.



Moto 360

Rooted? Yes

Active Development:

High

Motorola keeps slashing the price of the Moto 360, so pick one up now it's cheap to experiment with smartwatch hacks.



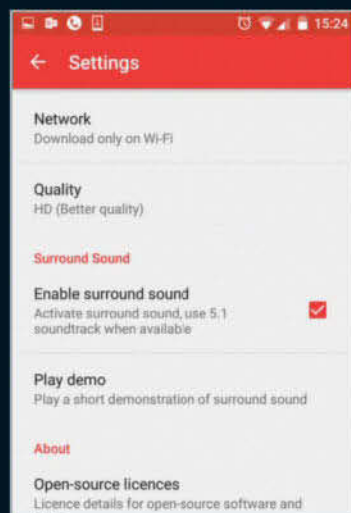
Tips & Tricks

Surround sound on Google Movies

Peace and quiet has descended. Work is done, the kids are in bed (or the parents!) and you're ready to watch a movie on your Android Lollipop phone or tablet, streamed direct from the internet via the Play Movies & Videos app.

You make your selection, hit play and... well, it looks good, but the sound could do with a lot of work. Movies play with surround sound at the cinema but despite your phone's sound system, the same doesn't seem to be true here. Or is it?

Although it should be enabled by default, you can easily switch on

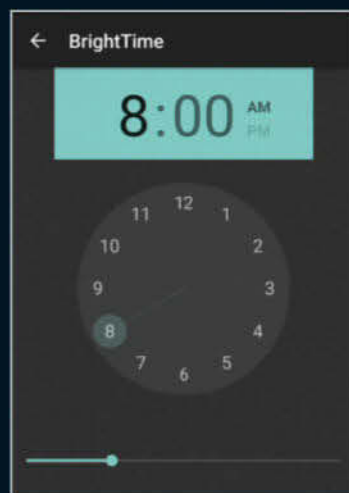


Enjoy movies with 5.1 surround on Android

Dolby 5.1 surround sound in the Play Movies & Videos app. Open the menu, then Settings, find Surround Sound and check the Enable Surround Sound box. You might even tap the Play Demo button to get an idea of the 5.1 soundtrack capabilities of Android.

Change brightness depending on time

Display brightness can be a big problem on the Nexus 5, especially for battery life. While the Adaptive Brightness setting can be useful, a slicker option is to have the brightness automatically change depending upon the time of day.



It is possible to manage brightness more effectively on your Nexus 5

You'll need to have Unknown Sources enabled (you can do this from Settings>Security) before heading to XDA-Developers.com and searching for and then downloading the BrightTime app.

Upon launching BrightTime you'll find some timestamps already present. You can use these or delete them and set up your own using the '+' button. Just tap on a time and adjust the slider to determine how bright the display should be at that time; you can also adjust the clock as necessary. For instance, you might have the brightness turned high during daylight hours and then turned lower during the night.

With the BrightTime app active, your phone's brightness will be adjusted when the corresponding time of day arrives.

Set owner information

Your phone has been lost.

Fortunately, though, it's in the hands of someone trustworthy and who wants to return it.

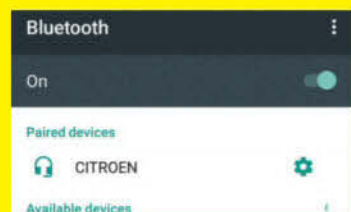
That's the good news. The bad news is you didn't save any contact information on your device, so your Good Samaritan doesn't know how to get in touch to return your Android.

This isn't a situation you want to be in is it? So best avoid it, something that can be easily done

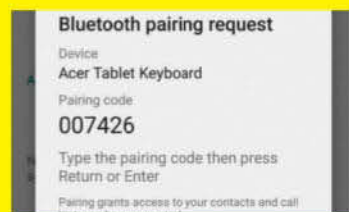
quickhacks

Turn your device into a mobile office with Bluetooth

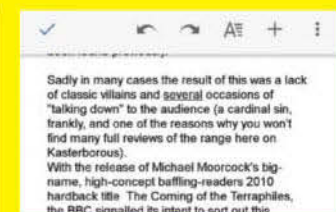
Rumours about Windows 10 for mobile suggest that devices will be ready to connect to keyboards and monitors, creating desktop computers that fit in your pocket. But once again Microsoft is late turning up to the party; Android already has this functionality!



1 Enable Bluetooth
The opportunities afforded by Bluetooth are considerable. Embrace your device as a portable office PC by enabling Bluetooth in the Quick Settings screen and pairing your a keyboard and mouse.



2 Pair keyboard & mouse
Bluetooth pairing requires you to enter 0000 on the keyboard. If there are problems, consult the device documentation to find the correct pairing code. Pair a mouse by holding the Connect button.



3 Portable desktop
With successful pairing, your Android device is now a compact desktop computer. If you're working on a document, flipping into portrait mode will afford additional screen real estate.

Share your tips

Got a great tip, or found a cool shortcut? Let us know!

» facebook

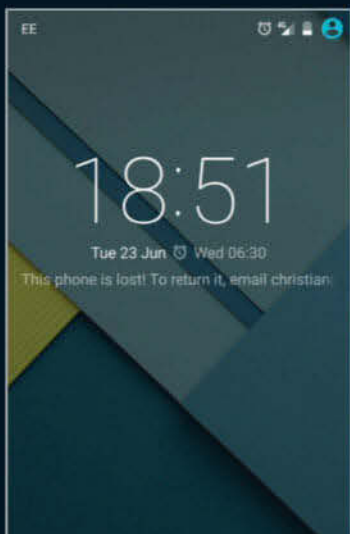
/littlegreenrobot
Like us on Facebook and join our online community

» twitter

@lgrobot
Follow us on Twitter to send us your tips & tricks

» email

qa@littlegreenrobot.co.uk
Discovered anything good about your Android phone? Let us know!



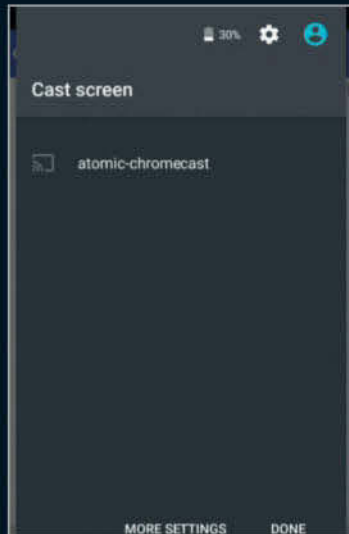
Display a lock screen message, and help get your lost phone back!

via Security>Owner info. This is a space where you can add a message instructing a kindly discoverer of your Android phone or tablet in the steps they can take to return it to you; perhaps you might even mention a reward (but only if you're prepared to pay it, of course!)

For safety's sake, however, please don't include any personal data, beyond a secondary phone number or email address. When you're finished, tap back to save.

Cast your screen for productivity

One of the most overlooked options in the Quick Settings screen on Android Lollipop has to be the Cast screen. Using this, you can send what is currently displayed on your device to any TV with a paired Google Chromecast attached.



The Cast screen button will send your Android home screen to a TV via Google Chromecast

While this might be something as mundane as browsing the web or enjoying Facebook on your TV, you could also be sending far more important pictures from your Android device to any HDTV or other hardware with a HDMI input.

For instance, Skype sessions can be sent from your phone to your TV, meaning the person you're speaking to is presented in a more life-like size. Alternatively, you might send a presentation from Office 365's PowerPoint or Google Slides.

To enjoy this feature, run the app you want to use and then open Quick Settings and tap Cast screen.

Hack the Lollipop Overview screen

The new Overview screen displays your open apps and, if the feature is active, enables you to pin an app or

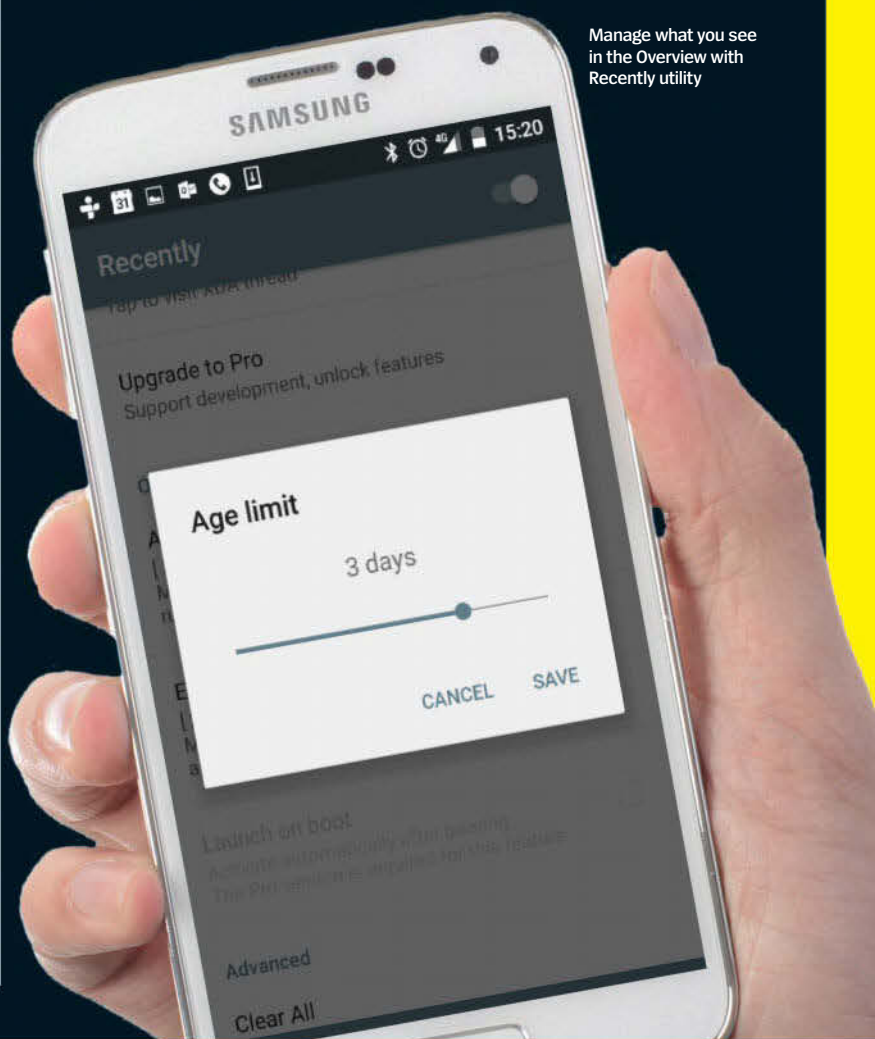
game, thereby cancelling the menu buttons. But the Overview itself can be tweaked, enabling you to specify various settings including how many running apps are listed.

On a rooted Android device, head over to Google Play and search for the utility Recently by Chainfire. Install it on your phone or tablet to proceed, and then launch. Grant super user access to proceed, then

toggle the switch in the top-right corner of the display.

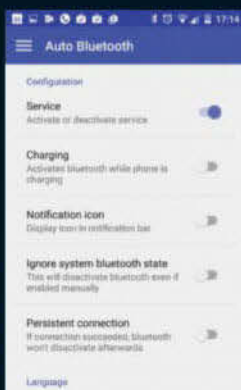
You'll see a number of options, such as Age Limit, which determines how long an app can stay in the Overview, and Entry limit, where you can cut down the number of apps that are listed in the Overview screen to just running apps.

Many other options are available; use them to customise the screen.



Manage what you see in the Overview with Recently utility

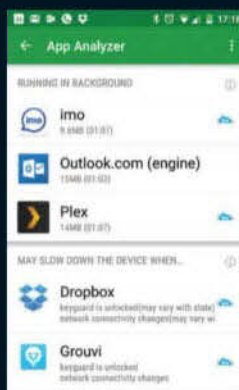
Hacking the easy way Get great new features without getting your hands (too) dirty



Auto Bluetooth

Price: Free
From: Google Play
Need root? No

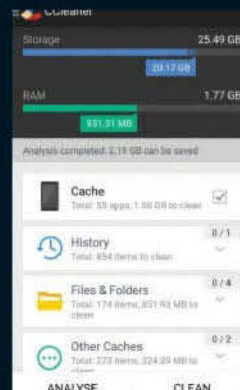
Ever been in the situation where you are receiving a phone call, but you have forgotten to activate Bluetooth to take it on your hands-free headset? This app will enable Bluetooth on incoming calls, making it easy to answer them.



Greenify

Price: Free
From: Google Play
Need root? Yes

A phone that is chugging along is incredibly annoying. So if you find yourself with a phone that is running slowly, the first thing you should do is install Greenify, which will stop apps from waking the device, draining the battery and going online.



Settings

Price: Free
From: Google Play
Need root? No

Rather than waste time hunting around for Android system settings in the Settings menu, use this free, ad-supported app to quickly open and toggle switches on and off as needed. The time it saves means the ads aren't even annoying!

Works with » Android Wear Difficulty » Advanced

Enable Wi-Fi for the G Watch R

Use this custom hack to add Wi-Fi support to the smartwatch the big Android Wear update forgot

The launch of Android 5.1 heralded considerable changes to Android Wear, providing a far more noticeable upgrade than the same update on phones or tablets. Aside from a refreshed user interface, one of the headline features is the ability to connect to a Wi-Fi network, which enables the device

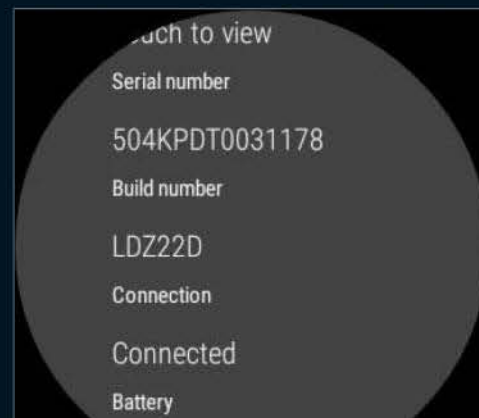
to stay connected even when the paired phone is out of range.

LG has initially rolled out this feature only on the new Watch Urbane, a glitzier, more expensive variant of the sport-styled G Watch R. The silver lining to this particular cloud is that as the two devices have virtually identical internal components; enterprising modders at XDA-Developers have extracted the important files from the Urbane and made them available for the G Watch R.

Just as with other Android devices, the G Watch R ships with a locked bootloader to prevent modification, which needs to be unlocked so that a custom recovery such as TWRP can be flashed – opening the door to further modification. As with all software hacks, enabling Wi-Fi can be a risky move and it's therefore important to take a backup of the stock software early in the process, in case you need to return to the stock ROM later.

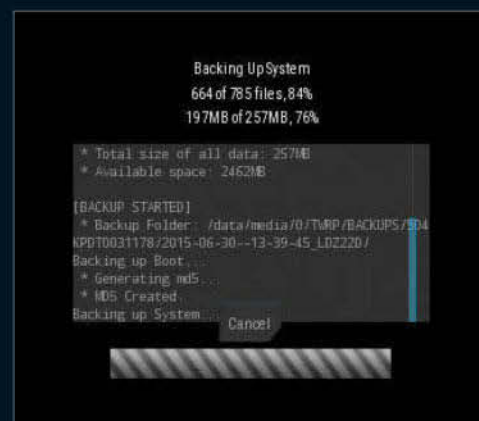
Part of the modification process involves flashing a custom kernel, which also lets you enable an additional core on the watch processor for improved performance.

“Enabling Wi-Fi can be risky – it's therefore important to take a backup of the stock software”



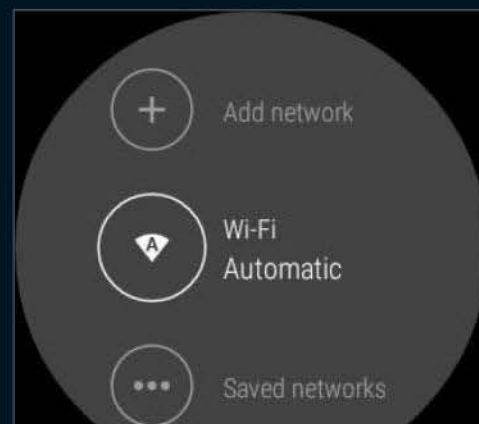
1 Update to LDZ22D

Using the G Watch R Wi-Fi modification does require that your watch is running version LDZ22D of Android 5.1. You can manually flash the correct OTA update ZIP.



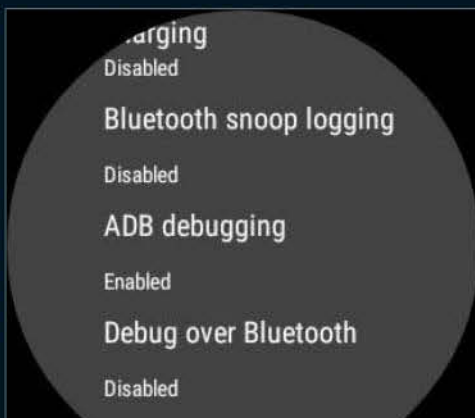
5 Backup system

Back up your device in case something goes wrong or you want to return to stock later. The process changes the kernel (contained in the boot image) and the system partition.



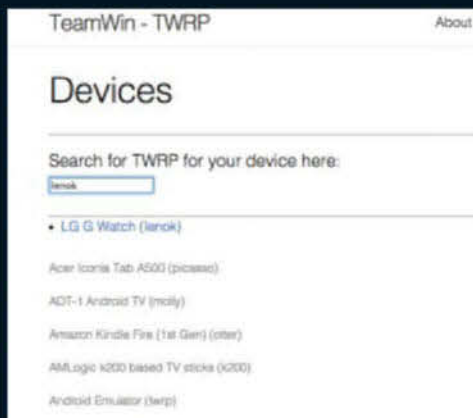
9 Configure Wi-Fi settings

After rebooting, you should have an option within the Wi-Fi Settings page labelled Wi-Fi Automatic. In the Android Wear app on your phone, you will also see a section labelled Cloud Sync.



2 Unlock the bootloader

To unlock the bootloader, you need to tap the build number in the About page five times. Use the 'adb reboot bootloader' followed by 'fastboot oem unlock' commands. The device will be wiped.



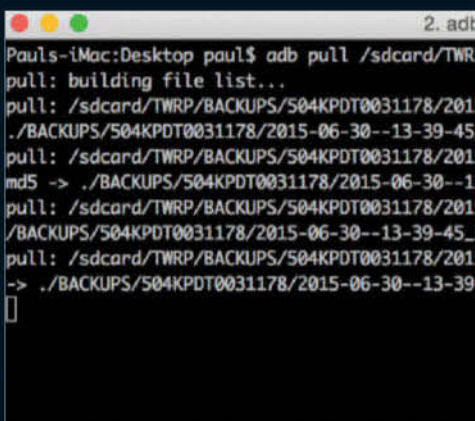
3 Install TWRP

The custom recovery image for the G Watch R is available from <https://twrp.me>. Use the device option and search using the codename 'lenok'. Once found, download the image.



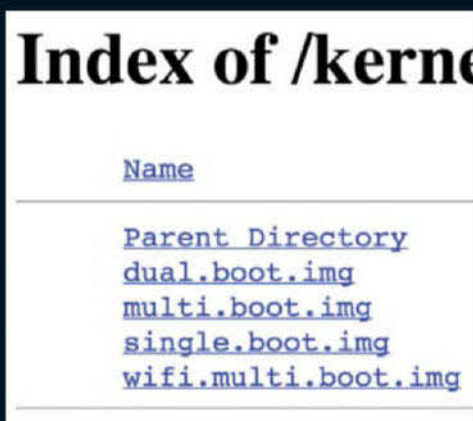
4 Fastboot flash recovery

After the image is downloaded, use 'adb reboot recovery' then 'fastboot flash recovery filename.img' to install. The recovery can be accessed using 'adb reboot recovery'.



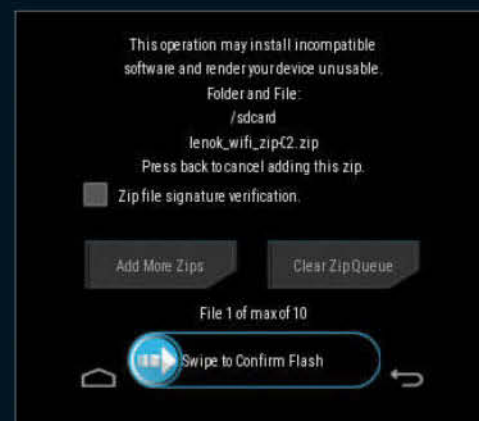
6 Copy off images

It's easy to do a factory reset at some point without realising this will also wipe your backups. Use ADB to pull them to your computer with the command 'adb pull /sdcard/TWRP'.



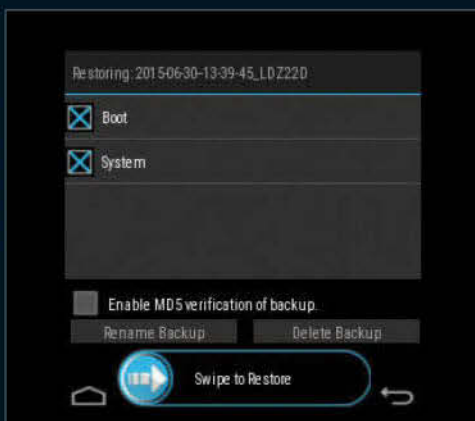
7 IntersectRaven kernel

You need a custom kernel. Two versions are available from <http://bit.ly/irgwr>; the first enables one kernel on the Snapdragon 400 CPU, the second runs in dual core mode.



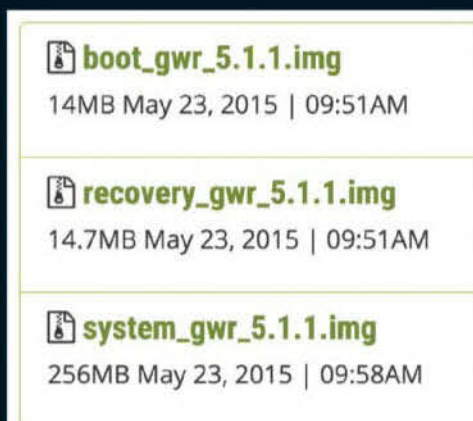
8 Flash the ZIP

After you've installed the kernel, install the modification ZIP itself. The file can be downloaded from <http://bit.ly/wifigwr>. Transfer using the 'adb push filename.zip /sdcard' command.



10 Restore your backup

If you want to restore your device back to stock, use your backup images. Although this will revert the boot and system partitions, it won't install the stock recovery.



11 Revert to factory status

Download the individual partition images from <http://bit.ly/imggwr>. Use the 'adb reboot bootloader' and 'fastboot flash partition filename' commands to flash the three images in turn.



12 Relock the bootloader

To complete the process of reverting to factory status, after checking the device boots up correctly you can also use 'fastboot oem lock' to relock the bootloader.

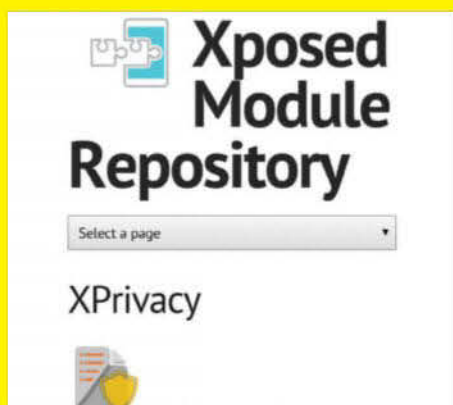
Works with **»** Android 4.0.3 and up **Difficulty** Easy

Restrict permissions with XPrivacy

Decide what personal info and hardware apps can access

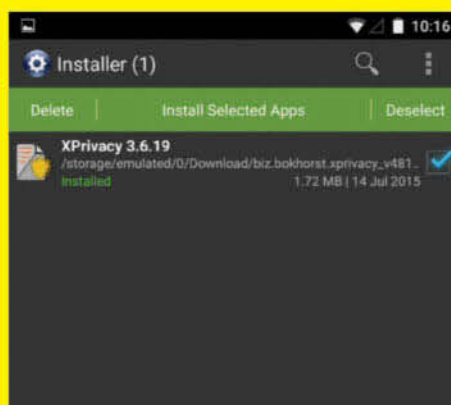
It was recently announced that the next generation of Android, Android M, will give users granular control over app permissions. However, if you've got a rooted device you can already do this with the XPrivacy module. This lets you to select apps and deny them access to various information on your phone. As well as this, it will also let you fool your

phone to protect your privacy. You can manually input a location, new number and a host of other details so an app believes you're elsewhere or sends the wrong phone number to apps to keep your real details safe. Read on to find out how to install XPrivacy, block apps from mining your data and change your settings to keep your identity secret.



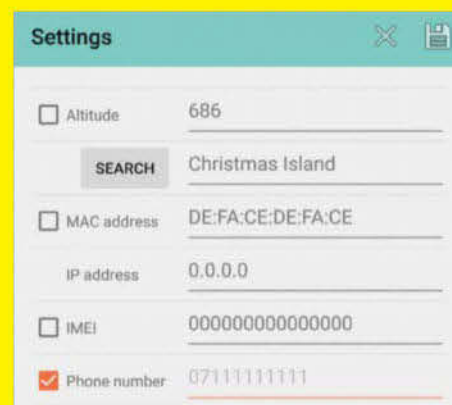
1 Install XPrivacy

To begin, ensure your phone is rooted and you have the Xposed Framework installed. Then either go to the Xposed Module Repository (<http://goo.gl/KK8yMB>) or search for [Root] XPrivacy Installer in the Google Play store and download the free app.



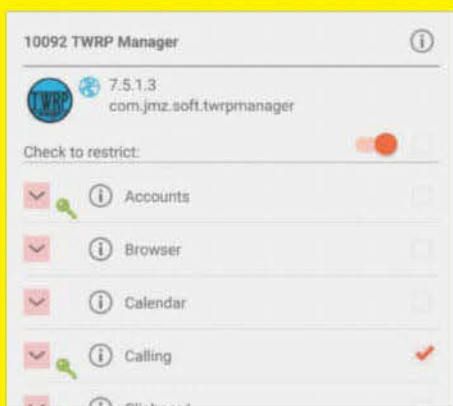
2 See your apps list

Reboot your device. Head into the Xposed Installer app and tick the box next to XPrivacy. Reboot your phone again and this should cause XPrivacy to become active. If this is the case, open up XPrivacy and you will see your full list of apps.



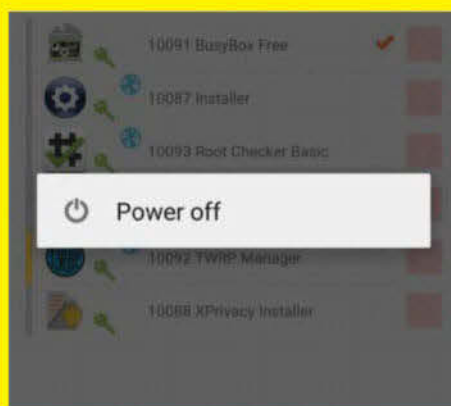
3 Fool your phone

Tap the menu in the top right and hit Settings. This is where you can trick your phone into giving out fake details. Change your location, phone number or any of the other options. When apps read this information it will take its details from here.



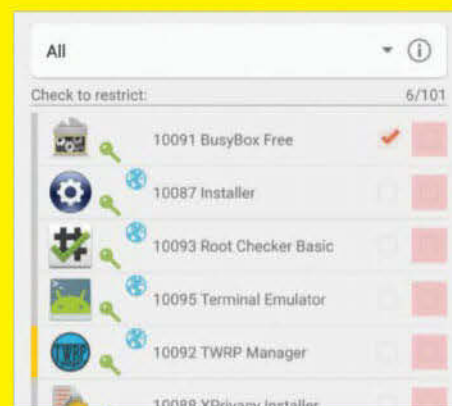
4 Deny specific permissions

Tap on a particular app and a screen will appear showing all the permissions you have granted it. By pressing the tick next to it, the app will believe the data in your new Settings list, such as your pretend location.



5 Restart your handset

Once you have selected the permissions you want to remove from the account, restart your phone. When it turns back on, the app should now be reading the fake data. Remember apps sometimes require genuine data to work, such as Google Maps.



6 Block all permissions

If you want to perform a blanket deny on all permissions for an app, hit the tick box next to the app name and it will automatically tick everything off for you. This is a particularly useful procedure for games because they shouldn't need to access anything.

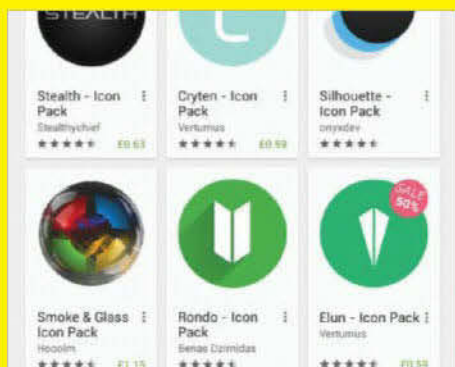
Works with >> 4.0.3 and up Difficulty Easy

Mix and match icon packs in Lucid Launcher

Use Icondy and Lucid Launcher to choose what icons you want to display

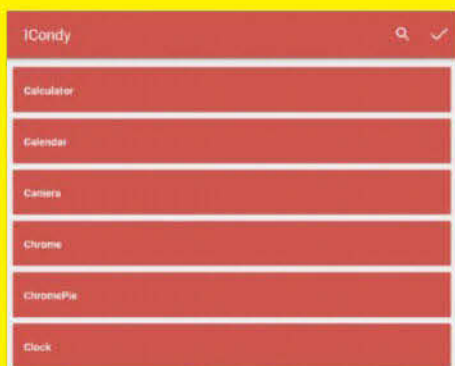
While icon packs are a great way to customise the look of your Android, they don't always offer what you're looking for. In this tutorial we're going to show you how to use Icondy to mix together icon packs, giving you better control over the look and feel of your homescreen. It's a pretty simple process, although at the moment the app only supports Lucid Launcher, which means if you're using a different

third-party launcher app you're going to be out of luck. So to get started you'll need to download Lucid Launcher, then you'll need to grab Icondy from Google Play. There is a free version to play around with, so you'll probably want to get that first to make sure everything works okay with your device. You can then buy the premium version as an in-app purchase if you want.



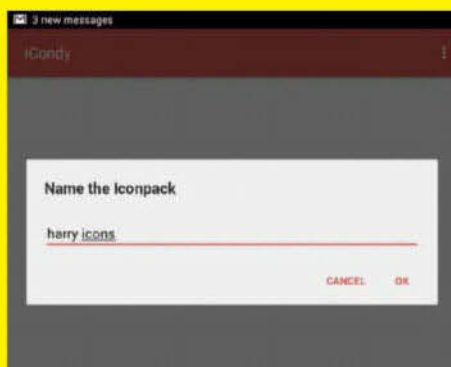
1 Get some icon packs

First up you'll need to have some icon packs installed. If you don't have any, head to Google Play and search for Icon Pack. You'll be given loads of results. Find a couple that you like and download them. When they've finished installing, head back to Icondy.



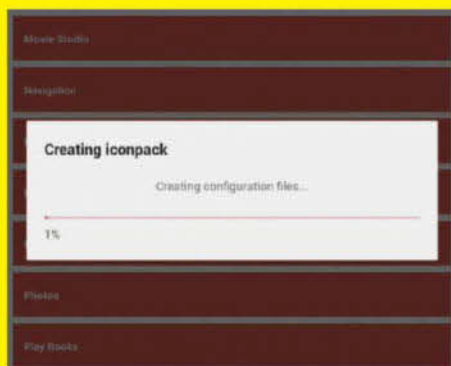
4 Follow the instructions

Next select which of your icon packs you want to be the default, and choose a default icon. Then it's time to blend your icon packs. Tap the button at the bottom and you'll be shown a list of all the icons that you've currently got on your device.



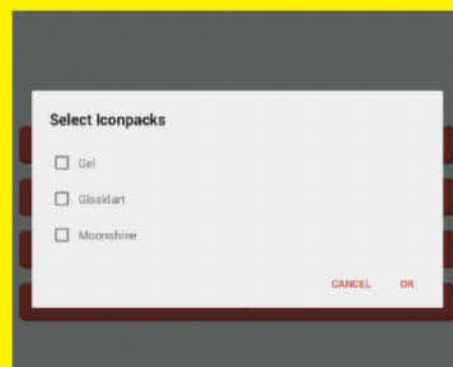
2 Create your own icon pack

Now it's time to create your own icon pack. Tap on the orange plus sign in the bottom right-hand part of the screen. This will ask you to create a name for your new icon pack. Decide on something sensible, then tap OK to be taken along to the next screen.



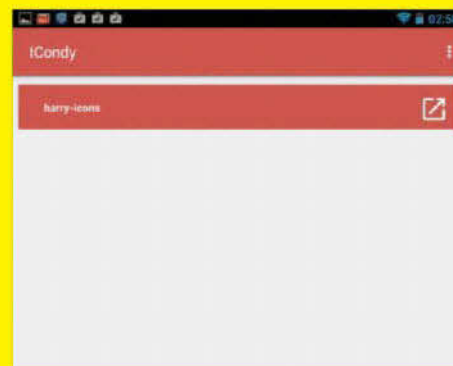
5 Save the pack

When you've finished choosing which icons you want to use for the different apps, it's time to create your icon pack. To do this tap the tick in the top-right corner. Depending on how many switches you've made, it might take a while. Tap back when it's done.



3 Combine the packs

This screen offers a number of different options. First you have to select which icon packs you can use. With the free version of Icondy you can only use two packs at once, but if you upgrade to the premium version, you'll be able to combine more.



6 Apply the pack

Lastly, head back to the main page of the app. You'll see your newly created icon pack displayed at the top of the page. Tap on the arrow-like icon next to the name of your pack, and then tap on Lucid Launcher to apply it. You'll now have mixed icons.

Works with » Android 4.0.3 and up Difficulty » Intermediate

Tweak Android 5.0 with XBlast

Use the XBlast Tools-Xposed module to modify how Android Lollipop works on your device

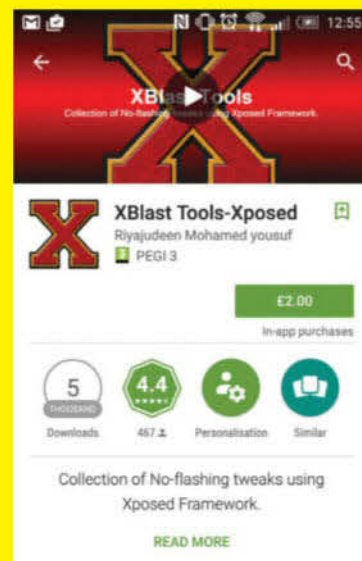
Xposed Framework is now available for Lollipop. It's a bit of a faff to get installed, and the app is still in alpha, which means there's a danger that it's going to brick your device if you do install it. But, if you're willing to take that

chance, you'll be able to take even more control over the latest version of Google's operating system. One of the handiest modules out there is XBlast, which is available from Google Play for £2 / \$2.38. It's not the most sophisticated of apps, and much like the Xposed Framework itself, it hasn't been updated to reflect

Android Lollipop's slick Material Design interface. However, it does give you a lot more aesthetic options than the ones that come with the stock version of the OS, and it's pretty simple to get it installed.

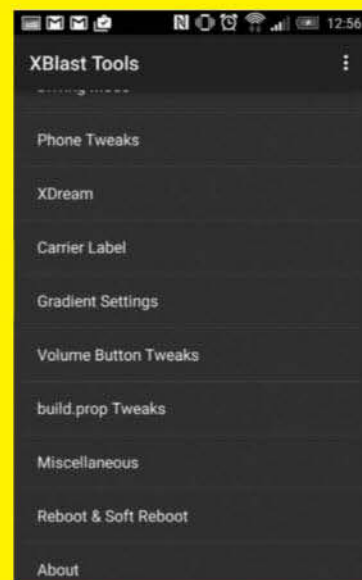
We're going to presuppose that you've already flashed the Lollipop Xposed Framework Alpha build onto your device. We'll walk you through installing XBlast, and show you a series of hacks that will let you change a number of things about the way your Lollipop device works.

It's worth noting that a lot of this will also work on non-Lollipop devices, but right now your best bet for customising Android 5.0 and up comes in the form of XBlast. Once you've grabbed the app, you're ready to go.



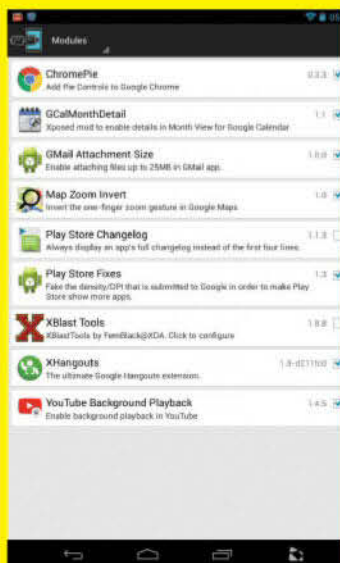
1 Get the app

Head on over to Google Play, do a search for XBlast Tools-Xposed and download the app. There are various versions available from the Xposed Module Repository, but they're not as up-to-date as the one found on Google Play. It does require a small payment, but it is definitely worth it in the long run.



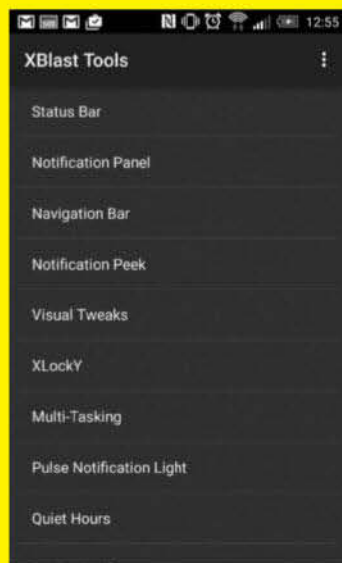
6 Go down deeper

Have a look further down the list of options on the main page, and you'll discover some more advanced options that require a little extra know-how. The more complex ones will even tell you that before you have a poke around. In particular the build.prop command tweaks. Let's have a look at those now.



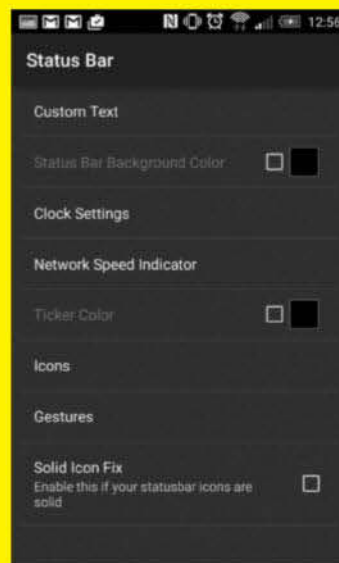
2 Install the module

Even though you've downloaded the app from Google Play, you'll still need to activate it in the Xposed Framework. Head to the Framework, look down the module list, check the right box, then tap to reboot your system in order to finish the activation process.



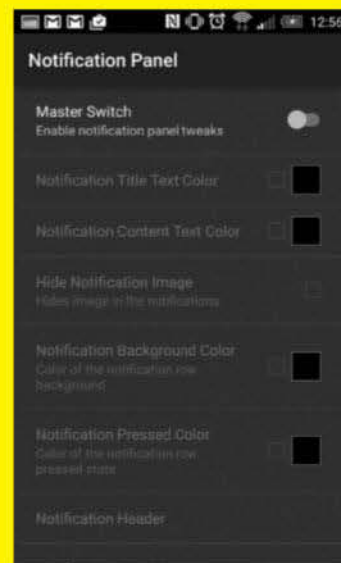
3 Open the app

Once your phone or tablet has rebooted, have a look for the app in your app drawer and then open it up. As you can see from the screenshot above, it's not the best-looking thing you'll ever have installed on your phone, but in this case you should definitely not judge a book by its cover.



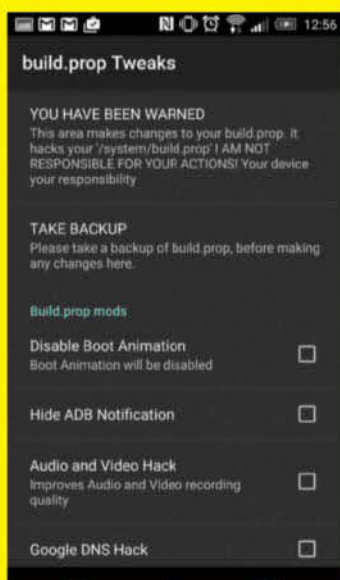
4 Get familiar with the options

The main page of the app is made up of a series of different options. These all represent the parts of the Lollipop OS that you can tweak from within XBLast. Some of them are a lot simpler to understand than others, but there's a lot of flexibility ready for you to take advantage of.



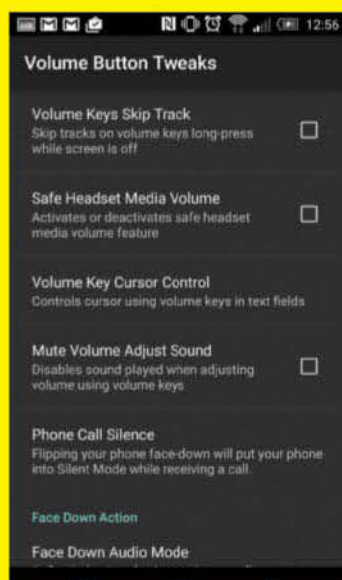
5 Check your notifications

Head into the Notifications part of the app and toggle the Master Switch. This will let you play around with the way your notifications look. Most of the options are aesthetic, but it's nice to be able to get rid of the images that some notifications usually automatically display.



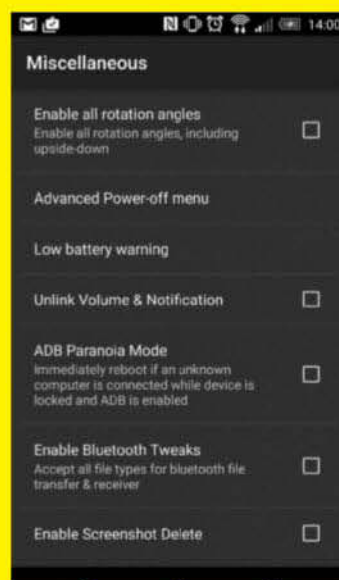
7 A build.prop?

Here you are able to tweak a number of functions that your phone runs automatically. For example, you can get rid of the start-up animation, change how often you scan for Wi-Fi, along with a variety of other options. Take a moment to have a play around to see what works for you.



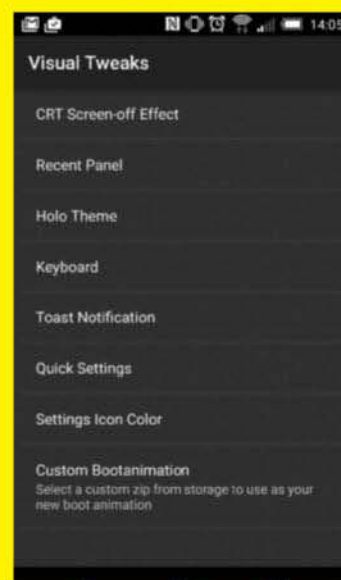
8 Use your buttons

You can change what the actions the hardware buttons perform in the various options as well, using them to skip tracks when you're playing music, or use them to control a cursor when you're typing. You can also alter what your phone does when you're playing audio and you flip it over.



9 Time for miscellany

Scroll down to the Miscellaneous options tab and you'll be able to unlock some other interesting settings, like being able to flip the screen when you hold your phone upside down. There are security options here as well that are worth having a look over.



10 Last not least

Now check out the Visual Tweaks menu. From here you can alter some of the look of your device. Try exploring the different settings to see what sort of customisation options are open to you. When you're done, save your settings so you can restore them easily if you ever need.

Works with » Android 4.1 and up Difficulty Easy

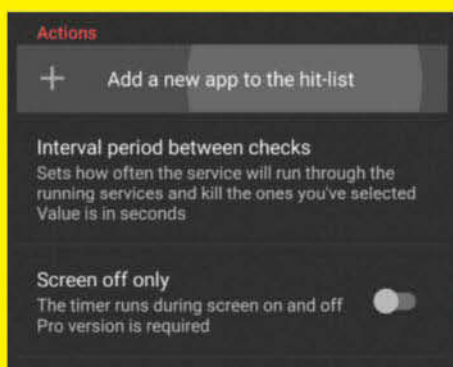
Save battery by killing background services

Sweep your device for battery-hogging apps that are running in the background

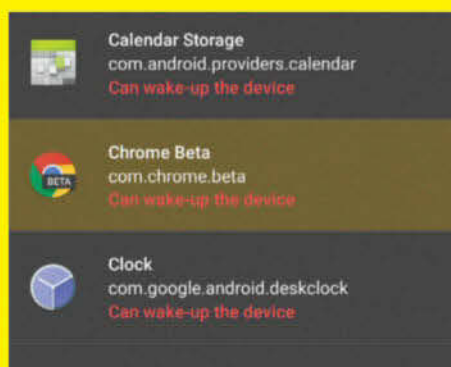
We all want to make the battery on our Android devices last a little longer, but this isn't always easy when apps and services run in the background without your knowledge. Maybe this is because an app is misbehaving, or perhaps you're in the bad habit of never closing your apps properly.

[root] Servicely is an app that periodically checks what's running in the background and if it finds a service that appears on your [root] Servicely 'hit-list,'

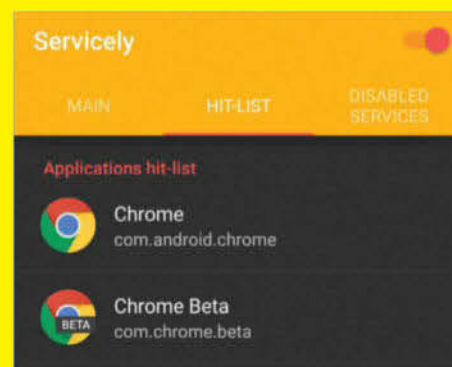
it kills that service. Since [root] Servicely scans the background only, you shouldn't encounter any problems with the apps you're interacting with in the foreground. For example, if you add Facebook to [root] Servicely's hit-list, it won't kill this app when it's visible onscreen. However, once you send Facebook to the background, the next time [root] Servicely performs its sweep, it'll kill the Facebook app. Please note that [root] Servicely does require root.



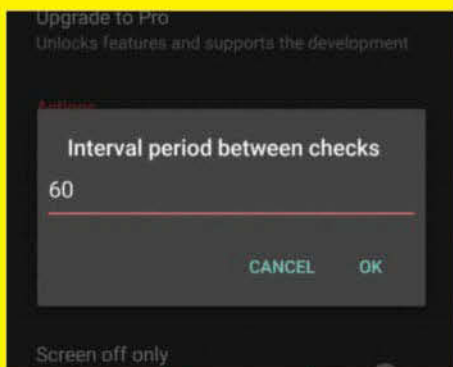
- Create your hit-list**
Download [root] Servicely from Google Play, then launch it and grant super user permissions. To tell [root] Servicely which apps to kill if it catches them running in the background, tap 'Add a new app to the hit-list' and then tap all the apps you want to add.



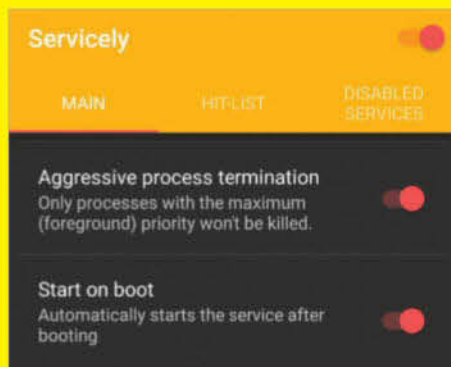
- Identify problem apps**
Pay particular attention to the Running Services area as this is helpful for targeting apps that are running in the background without your knowledge. Also be on the lookout for apps marked 'Can wake-up the device' as these are the ones that can really eat into your battery.



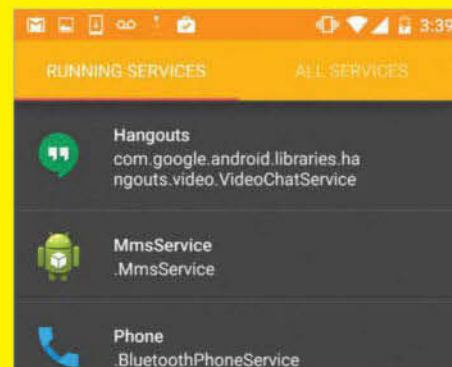
- Enable [root] Servicely**
After selecting some apps, create your hit-list by tapping the checkmark. To double-check the contents of your hit-list, go to the main screen and swipe to Hit-List. Tap the slider in the upper right and [root] Servicely will now monitor the services running on your device.



- Change interval period**
By default, your running services are checked every 60 seconds. To change this, tap Interval Period... and enter a new value. If you find [root] Servicely is killing apps you're still using, try turning the Aggressive Process Termination slider off.



- Pro features**
You can unlock additional features by purchasing the Pro version. To upgrade, tap Upgrade to Pro and follow the instructions. Once you've upgraded to Pro, you can set up the app so it automatically starts whenever you turn your device on (Start on Boot).



- Advanced mode**
The pro version also lets you Disable Individual Services, which is useful if there are features of apps you never user. However, disabling services randomly can cause problems with your device so make sure you know exactly what a service does, before you disable it.

Works with >> Android 4.1 and up Difficulty Easy

Get a fully-customisable hybrid lock screen

Personalise your lock screen to include app shortcuts, additional security, and even an iOS-style slider

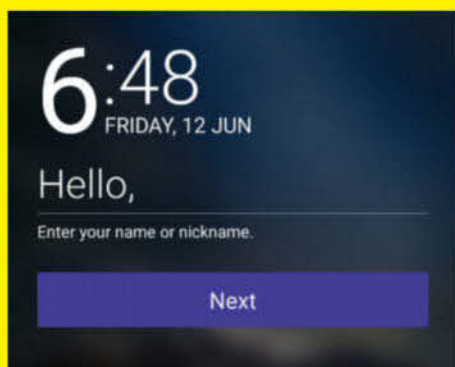
Lollipop's lock screen saw the return of a pair of app shortcuts – one for the Camera and one for the Phone app. However, the stock lock screen doesn't give you any way of customising these shortcuts, which is where the Hi Locker lock screen replacement app comes in.

The Hi Locker app includes five fully-customisable app shortcuts, plus some additional features for further customising your lock screen.

Some of these features are merely cosmetic, such as tweaking the text that appears on your lock screen, but others let you add extra functionality.

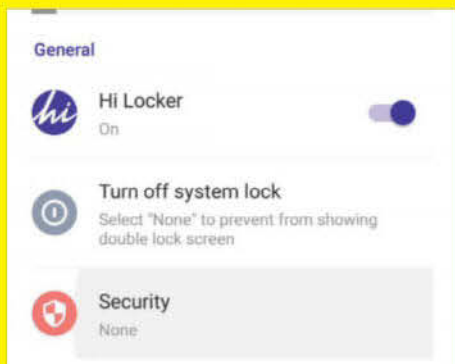
This tutorial shows you how to set up Hi Locker and explores the main ways you can use this app to personalise your lock screen.

You can download Hi Locker for free from Google Play. Once it's downloaded, launch your new Hi Locker app and let's get started!



1 Set up Hi Locker

Hi Locker starts by asking your name, so enter it and tap Next, then 'Turn on Notification Access.' Select the Hi Locker checkbox, then tap OK. Press your device's Back button. To prevent a double lock screen effect, tap Turn Off System Lockscreen and None. Finally, tap Start Now.



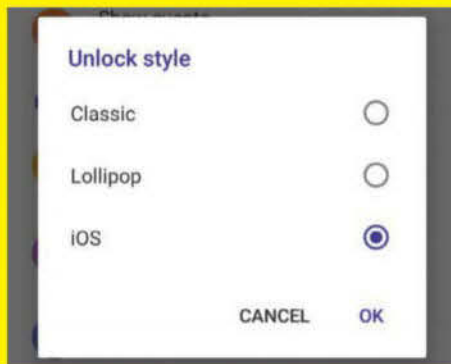
4 Add some security

Tap on Shortcut, drag the dot, select the shortcut you want to edit, and choose a new app from the list. While you're here, you may also want to add a security lock to your lock screen. Return to the main Hi Locker menu, tap Security and select Pattern or Pin.



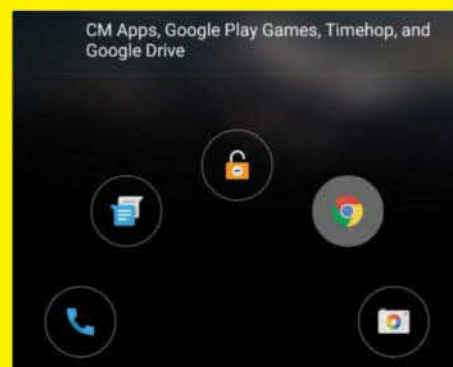
2 Add events

Navigate to your lockscreen. To dismiss a notification, swipe from the right. To open the related app, swipe from the left. Swipe your lock screen to the left and you'll see upcoming events. To add an event to Google Calendar and your lock screen, tap the '+' icon.



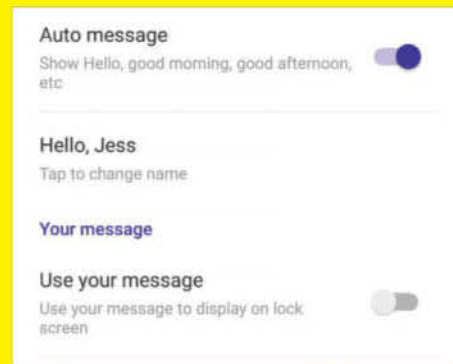
5 Get an iOS lock screen

Another big part of Hi Locker is customising your lock screen to look as you want. Return to Hi Locker's main menu. Here, you can replace your Android lock screen with a 'slide to unlock' iOS-style lock screen; tap Unlock Style, select iOS and tap OK.



3 Using app shortcuts

To use Hi Locker's app shortcuts, open your lock screen and then drag the white dot until five app icons appear. Continue to drag onto the shortcut you want. You can customise these shortcuts so they link to different apps. To do this, open the Hi Locker app.



6 Try a new font

Select Edit message from the main menu. Here, you can replace the lock screen's standard greeting by tapping Never Give Up... entering your own text, then tapping the Use Your Message slider. To change the font, tap Font Style and choose a new font.

Works with » Android 5.0 Difficulty » Advanced

Dolby-quality sound on your device

Boost your Android smartphone or tablet's audio quality with this Dolby Digital Plus mod

If you regularly use your Android device to listen to music or watch movies, then you may have noticed the sound quality on smartphones and tablets isn't always the best.

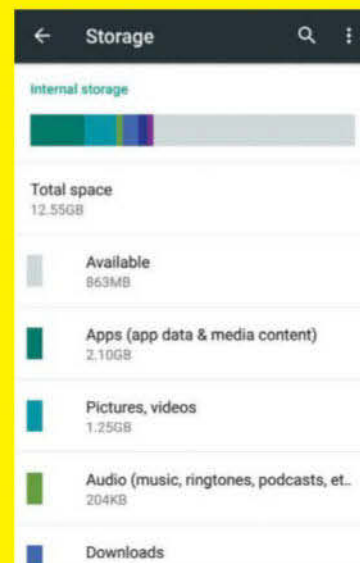
One way of improving your audio is to install Dolby Digital Plus. This is a software pack that includes various sound profiles, which all boost your device's audio quality in different ways. For example, the Voice profile detects and improves dialogue, which is handy if you're listening to an audiobook. You can also create your own profiles to suit the specifics of your audio.

Thanks to a recent mod, Dolby Digital Plus is now compatible with more Android devices than before.

In fact, this mod should be compatible with any deodexed Lollipop ROM.

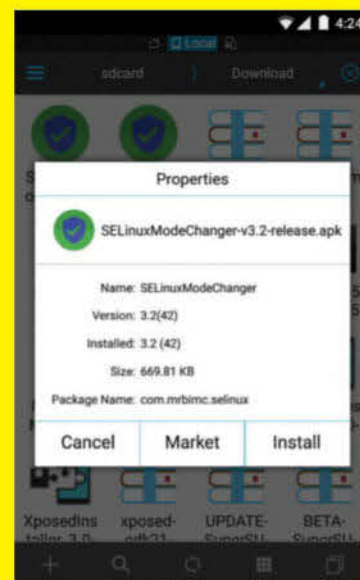
If you're unfamiliar with deodexed and odexed ROMs, stock and manufacturer ROMs are generally odexed, whereas custom ROMs tend to be deodexed. Before attempting this hack, it's definitely worth checking the XDA Developer thread as it includes a list of devices that Dolby Digital Plus is known to be compatible with (<http://goo.gl/8zASo9>).

This hack does require a rooted device with a custom recovery installed. Depending on your device, you may also need to flash a particular ROM. Again, the XDA Developer thread has all the details, so before you start be sure to have a good look at this thread and flash a custom ROM if necessary.



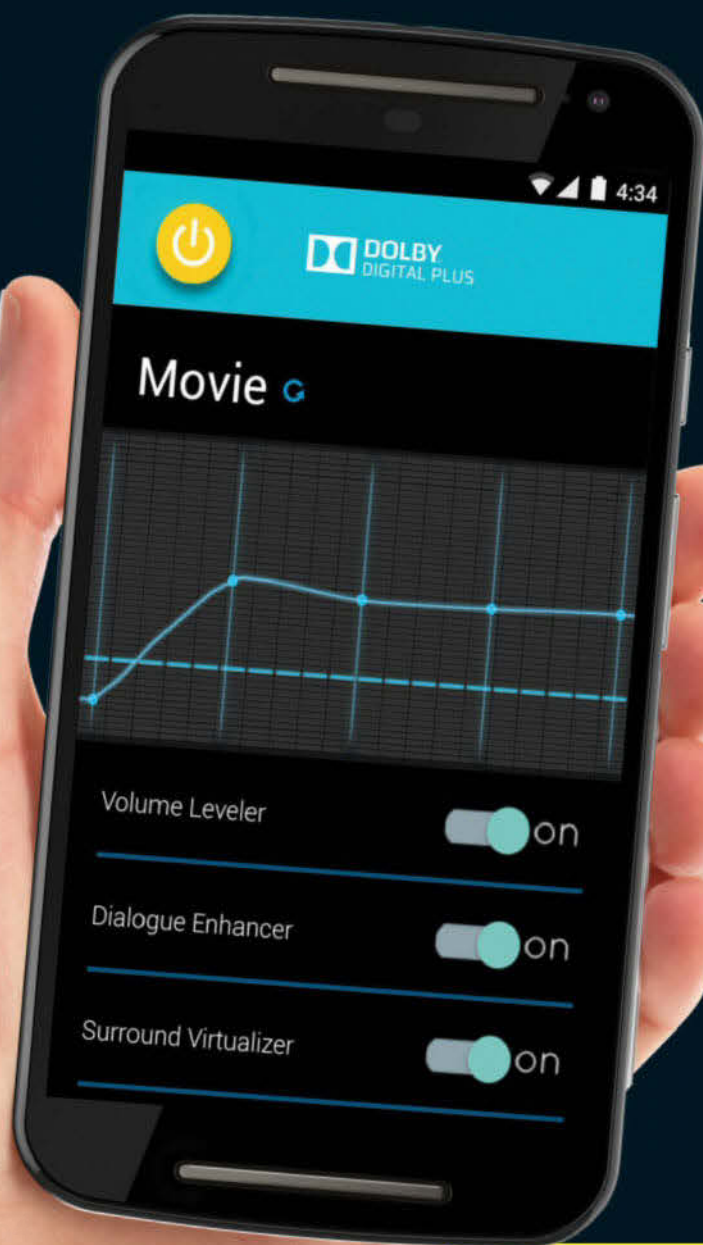
1 Check available space

To install Dolby Digital Plus successfully, you need at least 25MB of free space. To check how much space you have available, open your device's Settings and select Storage. If you have less than 25MB, you'll need to make some room before moving onto the next step.



6 Download SELinux

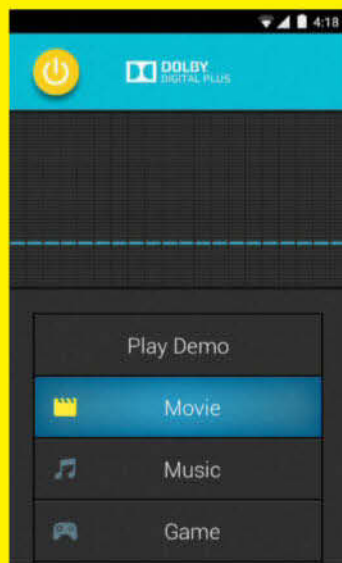
If you find that Dolby is still force closing, the problem could be that SELinux is set to Enforcing mode on your device. To switch SELinux to permissive mode, download the SELinuxModeChanger.apk from <http://goo.gl/CSyww>. It's best to use a file explorer to navigate to this APK, and then give it a tap.





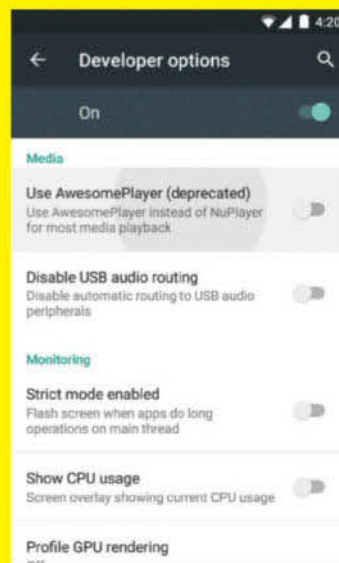
2 Flash Dolby Digital Plus

Download the Dolby Digital Plus ZIP from <https://goo.gl/VemEkv>. Place this file somewhere accessible on your device, then boot into your custom recovery. Flash the Dolby ZIP, then wipe the cache partition. Open the Advanced menu and select Wipe Dalvik Cache. Reboot.



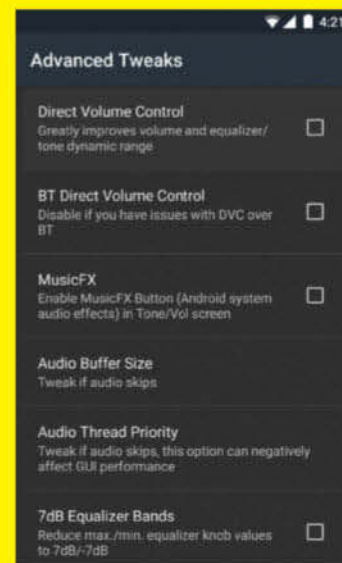
3 Try switching profiles

Open your app drawer and launch the Dolby app. You'll see a selection of default profiles that you can switch between. Try selecting a new profile. At this point, the app may crash. If it does, there are a number of things you can do to try and get it working, so don't worry.



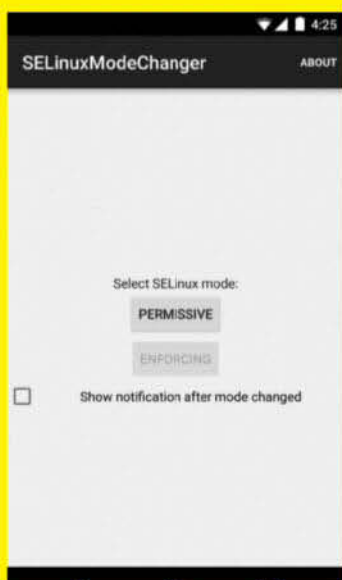
4 Disable AwesomePlayer

Go to Settings and open Developer Options. If you don't see Developer Options in your menu, go to About Phone and tap Build Number until you see a message 'You are now a developer.' In Developer Options, find Use AwesomePlayer and make sure the slider is set to Off.



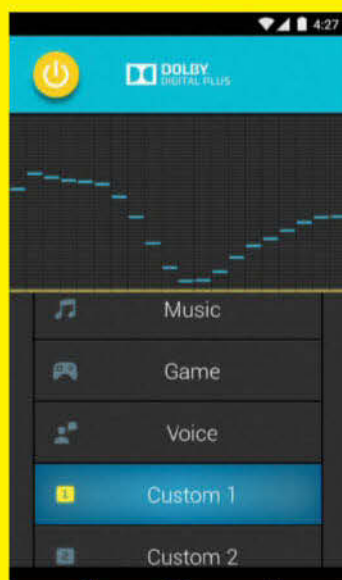
5 Nexus 5 users

If you're using a Nexus 5, you disable direct volume control using the Poweramp app. Head over to Google Play and download Poweramp (£3/\$3.99 but there is a free version). Launch Poweramp, tap the menu icon, select Settings>Audio>Advanced Tweaks. Disable Direct Volume Control.



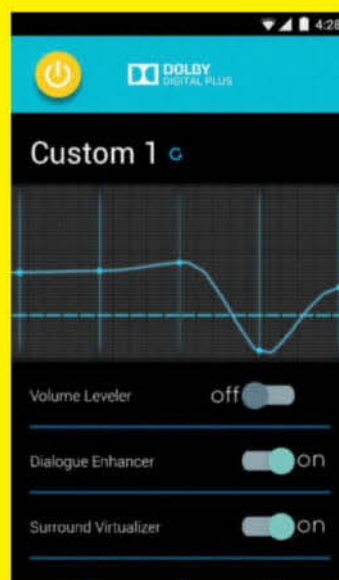
7 Make the switch

When prompted, tap Install. Open your app drawer and launch the SELinuxModeChanger app. Tap the Permissive button. Relaunch the Dolby Digital Plus app and try switching profiles – it should no longer force close. You can now switch profiles to suit whatever you're doing on your device.



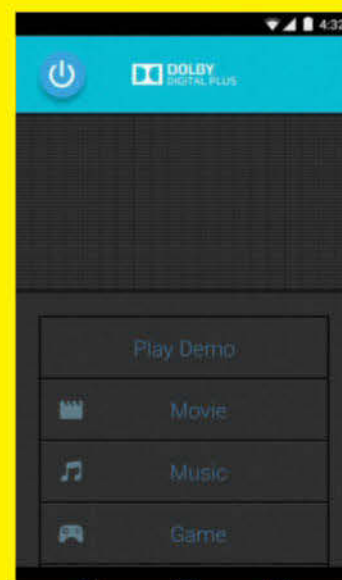
8 Edit Dolby profiles

You can edit the default profiles by double-tapping them. Alternatively, create your own by double-tapping Custom 1 or Custom 2. Whether you're editing a default profile or creating a new one, you get access to the same three sliders, which you can toggle on or off.



9 Levelers and enhancers

Volume Leveler monitors the audio and makes adjustments to keep the volume at a consistent level across different content and applications. Dialogue Enhancer monitors audio for dialogue, and applies processing to improve the intelligibility of the spoken portion.



10 Disable Dolby Digital

The final switch, Sound Visualizer, brings a surround sound effect to your device. Once you're happy with your profiles, return to the main Dolby screen. If you ever want to stop using the Dolby app, you can do so here, by tapping the power button in the upper-left corner.

Works with **Android 5.0** Difficulty **Easy**

Power-up Android Lollipop's notifications

Get more info from Android 5.0 alerts with the updated version of XBridge

Those of us who have a ton of apps are bombarded with a stream of notifications. However, with so many different icons it can be tricky to keep track of where notifications came from and where the apps themselves have come from. XBridge is a module that has just been updated for Android 5.0 that gives you more information about the apps sending you

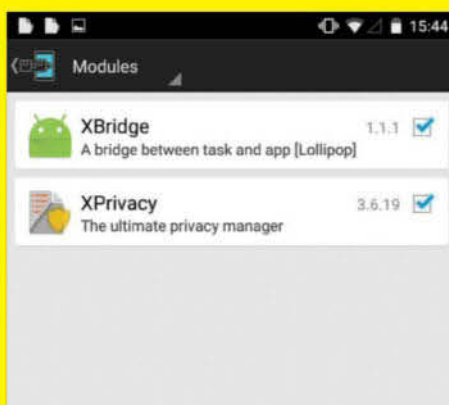
notifications. A push on the bar will let you perform a web search related to that app or go straight to Google Play, where you can uninstall the app.

This tutorial will show you how to get the Xposed module and then use it to keep on top of all the notifications that appear on your Android handset throughout the day. You will need root access for this.



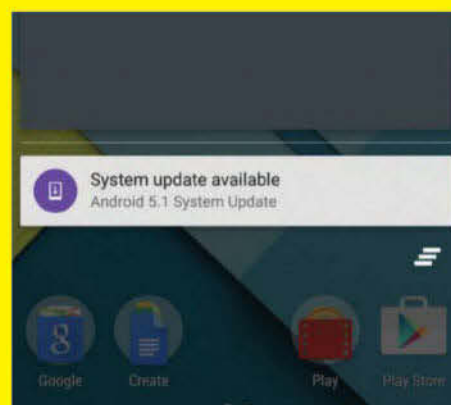
1 Get XBridge

Head to the Xposed Module Repository (<http://goo.gl/14u6z0>) and click on the download link to add XBridge to your phone. Unfortunately there is not a Google Play version so you have to use the APK. Head into the installer and click the tick next to XBridge.



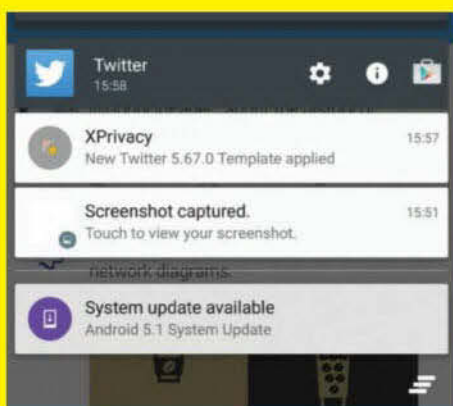
2 Finish setting up

Reboot your phone. Once it turns back on, you should be ready to start using the module. If it isn't, make sure you had ticked the box. XBridge may not work if you have certain custom ROMs set up, so check XDA Forum for non-compatible ROMs.



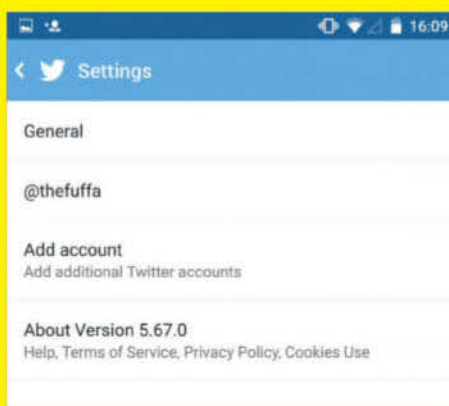
3 Notification locations

If you receive a notification and want to know which of your apps it is from, drag down your Quick Settings menu and then tap and hold on the notification. You should now see a range of icons. Tap the briefcase icon to go to that app in Google Play.



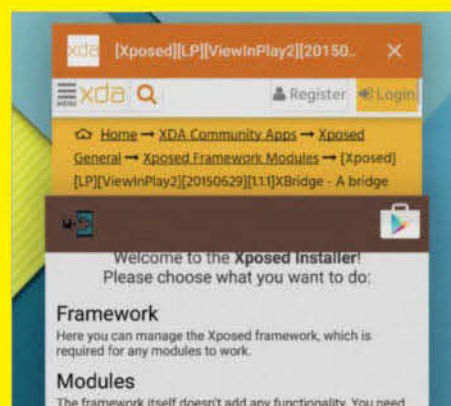
4 Edit notifications

As before, drag down the Quick Settings menu, tap the notification and then hold. You should see an 'i' in a circle appear. If you tap this, you can jump straight into your notification settings for this app without having to find them manually.



5 Enter your settings

Certain apps can also have their general settings hidden away in the depths of your phone. Drag down, tap and hold again, before pressing the cog icon. This will take you directly to that app's Settings page so you can perform a range of actions, such as uninstalling it.



6 Search Google Play

If an app is feeling buggy, head into the Recently Used apps list, press that app's information bar and hold. Tap the Google Play icon that appears. This will take you directly to that app's Play store page where you can uninstall and reinstall the app easily.

FOR THE GNU GENERATION

www.linuxuser.co.uk

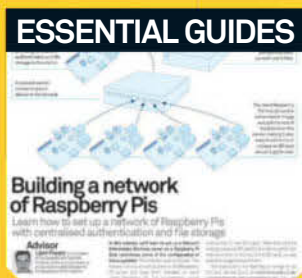


LinuxUser & Developer

Available
from all good
newsagents &
supermarkets
today

ON SALE NOW:

» Program a shell » Master the command line » Awesome Pi upgrades



BUY YOUR ISSUE TODAY

Print edition available at www.imagineshop.co.uk

Digital edition available at www.greatdigitalmags.com

Available on the following platforms



facebook.com/LinuxUserUK



twitter.com/LinuxUserMag





Group test

Fantastic fitness bands

Which exactly is the best Android wristwear to help keep track of your daily activity?

The pedometer has evolved. Whereas once the humble step tracker made a note of footsteps and nothing more, the new wave of fitness bands have taken all-day activity monitoring to the next level. When synced with your smartphone, these health trackers can record a variety of physical activities, help you set and reach fitness goals and even act as an alarm clock. Oh yeah, some can tell the time as well, all for less than most Android Wear devices and an awful lot less than the Apple Watch. If you don't want to go full smartwatch but would like to have a wrist-strapped record of your fitness levels, then these lightweight, low energy-consuming fitness bands could be ideal.

We've pitted four top fitness bands, the Withings Activité Pop, the Moov Classic, the Garmin Vivofit 2 and the Huawei TalkBand B2, against each other to see which one offers the athlete or casual user the best possible experience, both through the band itself and the associated app. They will be battling it out to see which one will be chosen as the ideal training partner, whether you just want to keep tabs on your normal activity or if you're a dedicated sportsperson who needs to get the most precise data possible.

Withings Activité Pop

The stylish long-life tracker with a timeless look

The most frustrating thing about smart devices is recharging. That isn't a problem, however, with the Activité Pop from Withings, the little brother to the Withings Activité. It has a battery life of a whopping eight months, so it can track your walks, runs and swims for three-quarters of the year without needing its power cell replaced. As it takes a standard watch battery, after the initial purchase, it's the most cost-effective option of our four fitness bands.

It is stunning in its simplicity. At first glance you might mistake the Activité Pop for an elegantly minimalist watch, but look closely and you'll notice a second dial that shows you how close you are to achieving a preset health goal. This is graded from 0-100 so you can see what percentage of the way you are to your target. It is very low key and has a quiet class about it

that means you could happily wear it in formal situations. The plastic strap is comfortable and the buckle is thin enough to not be intrusive when resting your arms on a desk.

Additional fitness data and the ability to set goals is all done through a companion app. Although it provides a detailed readout of your steps through colour-coded graphs, it can be a bit overwhelming and isn't easy to navigate.

The alarm clock is a nice touch and very simple to use. Set the alarm on the app and the Pop will buzz gently on your wrist to give you an alert. It won't be enough to wake you up but handy as an alert or reminder that doesn't need you to get your phone out of your pocket.

As the Activité Pop lacks a touch screen, you do have to rely heavily on your phone but that helps it to remain slim and sleek.



£119.95/\$149.95

» More information withings.com
» Supplied by Withings

Verdict

The Pop is a basic tracker but that is its appeal. We like its simplicity but the app could be easier to use



Garmin Vivofit 2

The small but mighty health tracker

Garmin has a large range of wearables, each tailored for specific activities, the latest of which is the Vivofit 2. It sports a solid rubber wrist strap that, while not as nice as the Activité Pop, is certainly a step up in quality and feel from the B2 and Moov. One frustration is that the display only ever runs along its length, forcing you to either read sideways or hold your arm at an awkward angle. The B2 probably has the edge on the information display in that sense, but the Vivofit 2's screen is big, bold and clear. It fits very snugly to the wrist and, although it isn't as attractive in terms of everyday design as the Withings, it is the best looking of the traditional style health bands.

Another of its big selling points is its battery. It boasts a life span of around a year before the battery cells need replacing. These are very

cheap and can be bought easily as most hardware stores and supermarkets. As it requires two cells it is slightly more expensive than the Withings, but only just and will still work out much cheaper over the course of the year than either the B2 or Moov.

It was a bit of an ordeal pairing and syncing the band, despite trying to connect it to several different phones. But once paired it was very reliable. The Garmin Connect app is very simply laid out, showing your data in a series of rows. It's easy to scroll back to data from previous days and filter what information you see, but in general it looks fairly uninspired.

The step counter was a little on the generous side, but was on the whole accurate. The band also buzzes to tell you to get up and go for a walk if you've been sat down for a long time.



£89.99/\$99.99

» More information garmin.com
» Supplied by Garmin

Verdict

A good fitness tracker for a great price, even if the display is at an awkward angle



Huawei TalkBand B2

The health band that doubles as a Bluetooth headset

Fitness trackers generally have one main job, but Huawei has decided that the TalkBand B2 should include a removable module that can work as a hands-free Bluetooth headset. However this added functionality comes at cost; the B2 is the most expensive tracker in our group test. Rectangular, it does resemble the Vivofit 2, except the 18.5mm PMOLED display reads out vertically. But the B2 would have been better if it was a little thinner as it does rise above your wrist. The screen's also touch sensitive and you can switch between viewing the time, your daily steps, and calories burned with a tap. The step and calorie tracker are accompanied by a neat little animation, which adds a spark of personality to the B2.

The B2 also includes a Find My Phone feature and a setting that buzzes at particular intervals

to tell you to get up and move about, similar to the Apple Watch.

This can be changed in the app, which is pretty basic but easy to understand, with big circular designs to show how close to your daily step target you are and how long you spent in various sleep cycles. Unfortunately, these tracking stats aren't the best. The step tracker added one step for every five taken, which is quite an overestimation and the sleep tracker seemed a bit askew as well. These are pretty major mistakes for a piece of technology that is aiming to keep you fit and healthy and something that we have to mark it down for.

You should get about five or six days of use out of the B2, although that is reduced if you use it to make calls. It has the worst battery life of the group but still better than a smartwatch.



£129.99/\$179.99

» More information consumer.huawei.com
» Supplied by Huawei

Verdict

We like the look but the inaccuracies in the step and sleep measuring are a problem



Moov Classic

Can this band motivate you to move?

The Moov Classic is a fitness band for the exercise enthusiast. It has five companion apps, each with a different speciality, namely running, cycling, swimming, cardio boxing and walking. This is a huge benefit because it means that you can keep your various workouts separate and each app can be tailored to that activity.

The product itself is a rather strange-looking object. The wrist strap is limp and rubbery with huge gaps. The additional ankle strap for swimming looks strange and the Moov module that you can switch between either strap is equally odd. It has no interface whatsoever and even if it is designed to be a basic tool, a simple clock face would have been a helpful addition. You might not even realise Moov is turned on until it starts talking to you while you're exercising. Moov will tell you to speed up or slow down to hit your fitness target.

Moov measures your current speed but also extra information such as your exercising efficiency and form, which is ideal for getting more out of your exercise session.

The various Moov companion apps are all very well designed, though it would have been nice to have a screen that displayed all the information in one place, rather than a number of screens each with speed, cadence, calories etc. This is impressive for the fitness enthusiast, but misses the everyday functionality of a simple step tracker. This means that you'll only wear this device rarely, whereas fitness trackers should be able to follow your activity all day.

It fits neatly into its charging cradle and, depending on usage, you should be able to get at least a week out of a full charge. Moov glows red when it's running low on juice but even then will run for at least another session.



£64.05/\$99

» More information welcome.moov.cc
» Supplied by Moov

Verdict

It loses points for its design and lack of useful physical features, but the apps are top quality





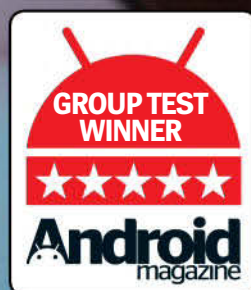
The winner... Garmin Vivofit 2

If you are looking for a reasonably priced, all-action, smart-looking fitness tracker, then the **Garmin Vivofit 2** is the one for you. We are huge fans of the look and the comfort it provides, it has the widest range of features available and the partnership with MyFitnessPal gives it that extra bit of all-round use. Okay, so the side-on display is a tad awkward to use but overall it is a stylish piece of kit that gives you everything you want and need from a fitness tracker.

Second place goes to the Withings Activité Pop. It is really different from anything else we've tried and we love the fact that it doubles as a normal watch as well. The display is attractive and it performs all the tasks you would expect of it, while managing to look fantastic.

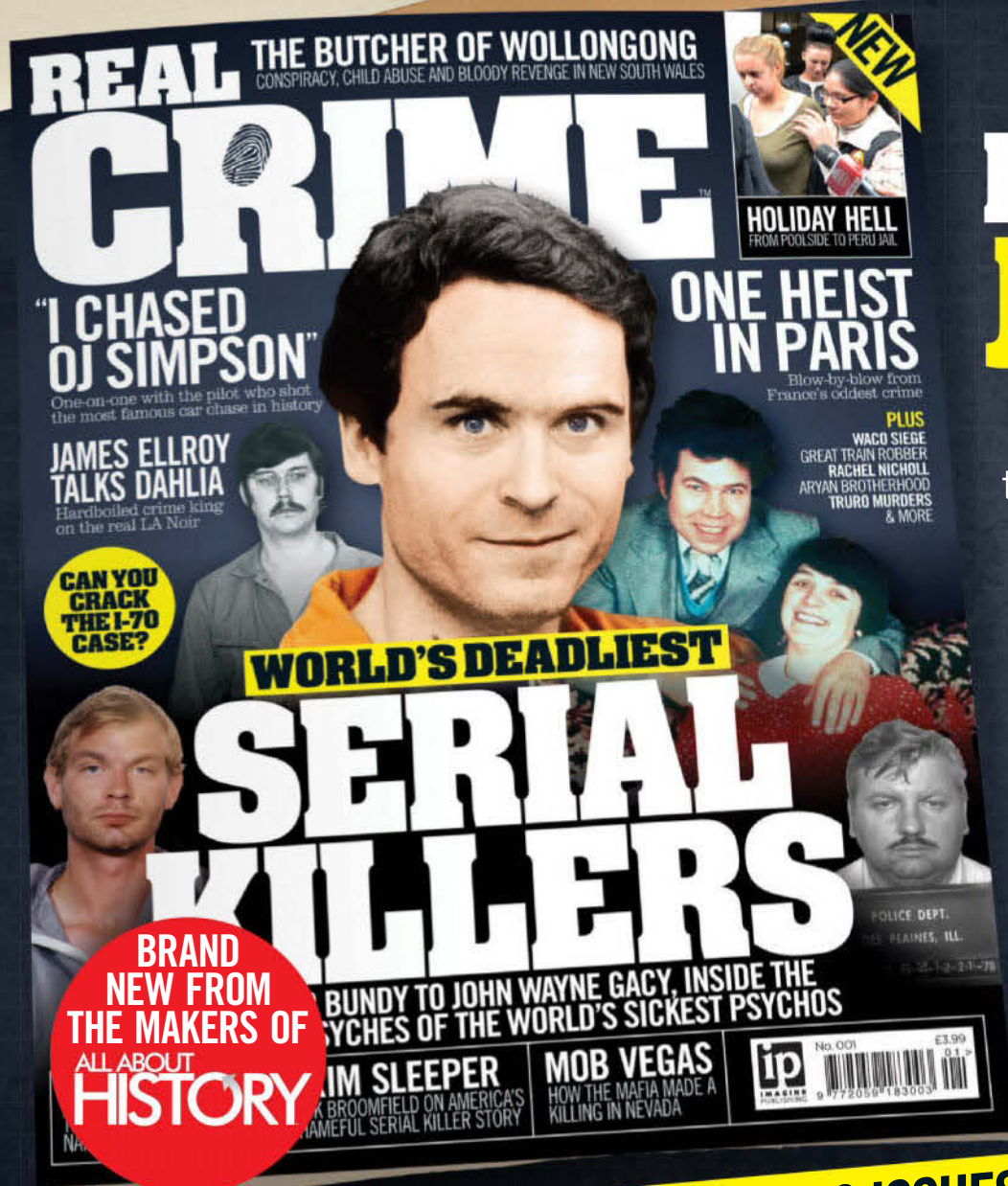
Next best is the Huawei TalkBand B2. Despite its slight inaccuracies it generally functioned well and we really liked the display. The addition of the hands-free module is a real selling point and that worked well. It's probably not going to win any style awards but it mostly did its job.

Bringing up the rear is the Moov Classic, but it comes with a caveat. This test was focused on fitness bands that were suitable for all day and casual use. The Moov Classic is better suited for athletes, to be used while training. In that regard it is very good and highly accurate, but it is fairly useless off of the sports track or outside of the gym as it doesn't track your footsteps.



	Moov Classic	Huawei TalkBand B2	Withings Activité Pop	Garmin Vivofit 2
Dimensions	36 X 8mm	22 x 119mm	36.3mm	210 x 10.5mm
Weight	8g	30.6g	37g	25.5g
Battery	Lithium-ion	95mAh	CR2025 coin cell	2 x CR1632 coin cell
Battery life	Eight active workout hours, 1 month inactive	Six days	Eight months	One year
Connectivity	Bluetooth LE & 4.0	Bluetooth 3.0	Bluetooth LE	Bluetooth 4.0
Waterproofing	3m	IP57	5 ATM (50m)	5 ATM (50m)
Tracks	Running, walking, cardio boxing, swimming, cycling	Walking, running, cycling, sleeping	Walking, running, swimming, sleeping	Steps, calories, heart rate
Ports	Micro USB	N/A	N/A	N/A
Overall score	★★★★★	★★★★★	★★★★★	★★★★★

THE UNTOLD STORIES BEHIND THE MOST INFAMOUS CRIMES



**TRY 3
ISSUES FOR
JUST £1!**

From the notorious serial killers of the Age of Aquarius to the ruthless mob bosses of the Jazz Age and beyond, Real Crime is the first high-quality true crime magazine on the newsstand. Every issue of Real Crime reveals the untold stories behind the world's most gripping cases, the breathtaking experiences of investigators and survivors, and blow-by-blow accounts of how lawbreakers were finally brought to justice.

3 ISSUES FOR £1 >>> DO NOT MISS >>> 3 ISSUES FOR £1 >>> DO NOT MISS >>>

**CALL THE
ORDER HOTLINE
OR ORDER ONLINE**

0844 245 6923
imagesubs.co.uk/crime

*Calls will cost 7p per minute plus your telephone company's access charge. Please use code NEW15T. This offer entitles new UK Direct Debit subscribers to receive their first 3 issues for £1. After these issues standard subscription charges will apply; currently £14.25 every 6 issues. New subscriptions will start with the next available issue. Details of the Direct Debit Guarantee available on request. This offer expires 31st October 2015.

Reviews

Sony Xperia Z4 Tablet

Can Sony deliver another winning tablet and finally put the Snapdragon 810 to good use?



The 10-inch tablet category is the unloved class of Android devices. While 7-inch and 8-inch tablets sell well, larger devices have typically been less popular than rival devices such as the iPad. There could be several reasons for this – an underwhelming tablet software library, the 16:10 form factor or perhaps just a lack of desirable tablets for consumer. For a while now, Sony has been trying hard to resolve the latter with its Z range of devices.

Sony's approach to both phone and tablet devices has long been one of evolution not revolution. The Z4, Sony's latest Android tablet, continues this trend. It retains the 'Omnibalance' design, but improves on its predecessor, the Z2 Tablet, in almost every way. The newcomer is incredibly thin at 6.1mm, extremely light at only 389g and with considerably shrunken bezels it is an impressive 12mm narrower than the Z2. This trimming in every dimension results in what could reasonably be considered the first 10-inch screened tablet that is comfortable to hold for extended periods. The Z4 Tablet is IP65 + IP68 rated to protect against dust or water ingress.

Stereo front speakers

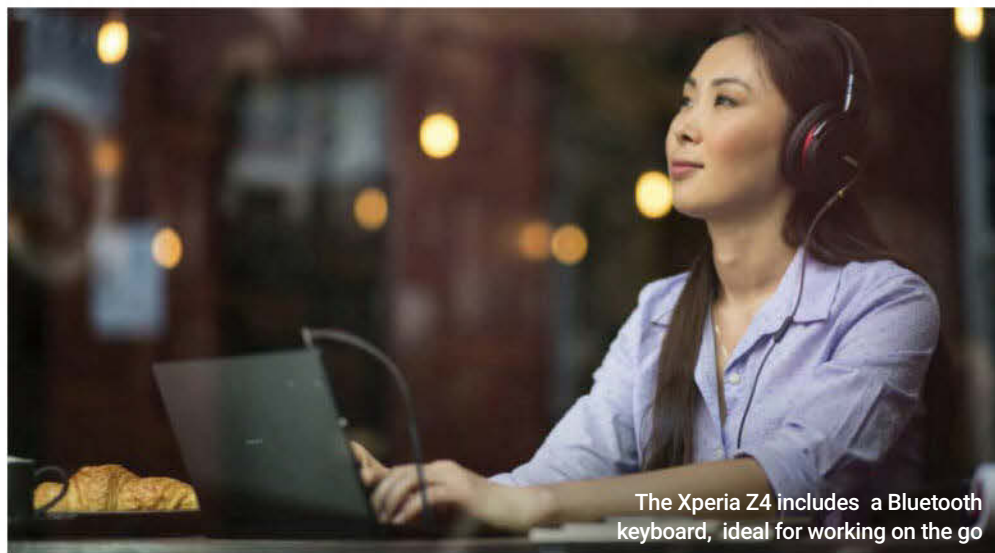
The Z4 Tablet has front-facing stereo speakers which provide an excellent immersive experience for playing games or watching videos. Sony's wired digital noise cancelling headset is supported, as is the enhanced AptX codec for Bluetooth headphones

Picture-in-picture

While not supporting full multi-window features, the Z4 Tablet does support 'small apps' – widgets that float on top of other apps. A good selection is included out of the box with more available for you to download direct from the Google Play site

Bright and beautiful

The Z4 Tablet has a 2K display that is a claimed 40% brighter than that on the Z2 Tablet, which was already an excellent panel. The net result? A screen that looks stunning, even in very bright sunlight



The Xperia Z4 includes a Bluetooth keyboard, ideal for working on the go

While the body of the tablet has shrunk, as you'd expect, the internals have been upgraded to the very latest specifications. The centrepiece of the Z4 is the controversial Snapdragon 810 with 3GB RAM and 32GB storage. In this device however, the processor may have finally found its natural home. The tablet is extremely fast in use, running Sony's lightly tweaked version of Android Lollipop. While the device can get warm, it never gets uncomfortably so, even under the most demanding of tasks. The screen on the Z4 Tablet is a 10.1-inch, 2560 x 1600 pixels IPS panel which is extremely bright and sharp. Although the screen is bright enough to be used outside, as with most tablets the reflective nature of the screen means glare can be an issue.

In the UK the Z4 Tablet is available in two versions – the 32GB Wi-Fi model bundled with the keyboard dock and the 32GB LTE model also

Information

Sony Xperia Z4

£499 / \$700

» More information sonymobile.com
» Supplied by **Sony Mobile**



Technical specs

» Operating system.....	Android 5.0.2 Lollipop
» Processor.....	Qualcomm Snapdragon 810 octa-core (4 x 1.5GHz Cortex-A53 + 4 x 2GHz Cortex-A57)
» Memory.....	32GB storage / 3GB RAM
» Dimensions.....	254 x 167 x 6.1mm
» Weight.....	389g
» Display size.....	10.1-inch
» Display resolution.....	2560 x 1600 pixels (299ppi)
» Front camera.....	5.1MP
» Rear camera.....	8.1MP
» Connectivity.....	Dual band Wi-Fi with AC support, Bluetooth 4.1 with AptX, optional LTE
» Expansion slot.....	microSD (up to 128GB)

Battery life

The 6,000mAh battery in the Z4 Tablet delivers fantastic battery life, despite its thinness and powerful processor

Good for

A chef's friend

The Z4 Tablet's water and dust protection make it a great companion in the kitchen

Work on the road

With Microsoft Office now available for Android and the addition of a keyboard makes this a great business device

Bad for

The app gap

Unfortunately, there's no denying that there still aren't enough good tablet apps on Google Play

Not about that bass

While the speakers on the Z4 tablet have a decent amount of volume, bass is negligible

Verdict

The Z4 Tablet is unquestionably the best Android tablet on the market today – at a very high price



The Start menu

When the tablet is connected to its Bluetooth keyboard, the system automatically optimises the user interface, providing a customisable Windows-style Start menu along with a three pane quick shortcut bar. These can be accessed both via the touchscreen and trackpad

bundled with the keyboard dock. The tablet can't be purchased on its own, which inevitably increases the cost of the device, and starts at £499. The keyboard itself which connects via Bluetooth and has its own internal battery is good, but not perfect. The keys have a surprising amount of travel given how thin the keyboard is. Dedicated keys are included for common Android functions and it is very comfortable to type on for extended periods – this review was written on it! Unfortunately, the included trackpad is not great – movement is jerky, it generally feels unresponsive and there's no option to reverse the scrolling direction for those of us who prefer the 'traditional' mode. One of the biggest problems with the dock, however, is that when it's in use, if the screen is pushed too far back it upsets the balance of the device and it tends to tip backwards. One other thing to note – the tablet might be waterproof but the keyboard isn't! So don't use it to work on your spreadsheets in the pool.

The keyboard dock makes the Z4 Tablet a great device if you need to input lots of data but it's certainly not all work and no play. The tablet supports Sony's Remote Play feature. Connect the device to the same Wi-Fi network as your PlayStation 4 and get gaming! It works extremely well and the keyboard also doubles-up as a useful stand for this purpose.

Taking photos on your tablet is passé, but it is surprisingly popular. The 8.1MP camera found on the rear of the Z4 takes average photos – you're likely to be much better off using your phone or indeed a proper camera. An area that has received a significant upgrade is the front-facing camera, which at 5.1MP now takes infinitely better selfies (particularly when you're in low light) and is much more capable for video calls. ■

Goodbye annoying flaps

The biggest change to the design of the Z4 Tablet is the loss of the rubber flap covering the microUSB port. Sony is now able to retain waterproofing without the flap, which is a huge improvement. Unfortunately, a dock connector is no longer offered

Docked for productivity

All UK-spec Z4 Tablet devices include the keyboard dock, which is a £140 option in other European countries. The keyboard, equipped with a battery that can run for months, turns the tablet into a real productivity machine

Motorola Moto E (2015)

Does the E stand for excellent in Motorola's budget buy?

When the original Moto E was launched last year it was a trailblazer for the super-budget phone. The Moto G had begun the revolution the previous year by offering a phone with excellent specs for around £150, but that is an extremely competitive marketplace now with the rise of the likes of Huawei and Asus. That competition led Motorola to head for an even lower price point while still keeping respectable specs. We really liked the original Moto E when we initially reviewed it, as it gave superb value for money, sporting the latest version of Android, good build and a Qualcomm Snapdragon 200 processor for just £89. However, as with the Moto G, it is now having to fight off a slew of rivals in this field, such as the Honor Holly, OnePlus One and the Asus ZenFone 5. The recently released Moto G 4G was a huge disappointment for us in issue 51, with almost identical specs, so what has Motorola added to the all-new Moto E (2015) to ensure it doesn't suffer the same fate? Not much, as it happens, but what it has done is beef up two very important aspects, namely the camera and the processor.

In what seemed to be quite an oversight, the original Moto E didn't have a front-facing camera. In a world in which 13MP front-facing cameras now exist that seemed like a huge gamble on the part of Motorola. Camera quality is a key battleground in differentiating similar phones and the lack of a selfie shooter was quite an issue. That has now been rectified with the Moto E (2015) as it now has a front-facing camera, albeit a limited 0.3MP VGA shooter. It produces grainy and low res images that struggle to pick out much detail. When you turn it round to face the light you can see it adapting to the conditions, which we were impressed by but it does take some time and the end result, while better than many budget selfie cameras we've tested, isn't great. On the rear it still has just a 5MP camera, but the f/2.2 aperture lens does let in an lot of light and the HDR mode is excellent.

The processor has been upgraded from a dual-core to a 1.2GHz Snapdragon 410 quad-core giving the Moto E (2015) a bit more power to play with. It proves its worth when playing videos and games and can multitask happily, but page loading is noticeably a bit on the slow side. When put through a standard benchmarking test it didn't perform brilliantly, with an overall score below that of the Asus ZenFone5 and the Xiaomi Mi2, though both of which retail for around £50 more.

One of the highlights of the first Moto E was its excellent battery life. Despite only running a 1,980mAh battery it lasted a day or more even

Selfie shooter

A key upgrade from the first Moto E is the presence of a front-facing camera. While it's not going to be a draw for serious mobile photographers, it should suffice for the occasional selfie

Screen quality

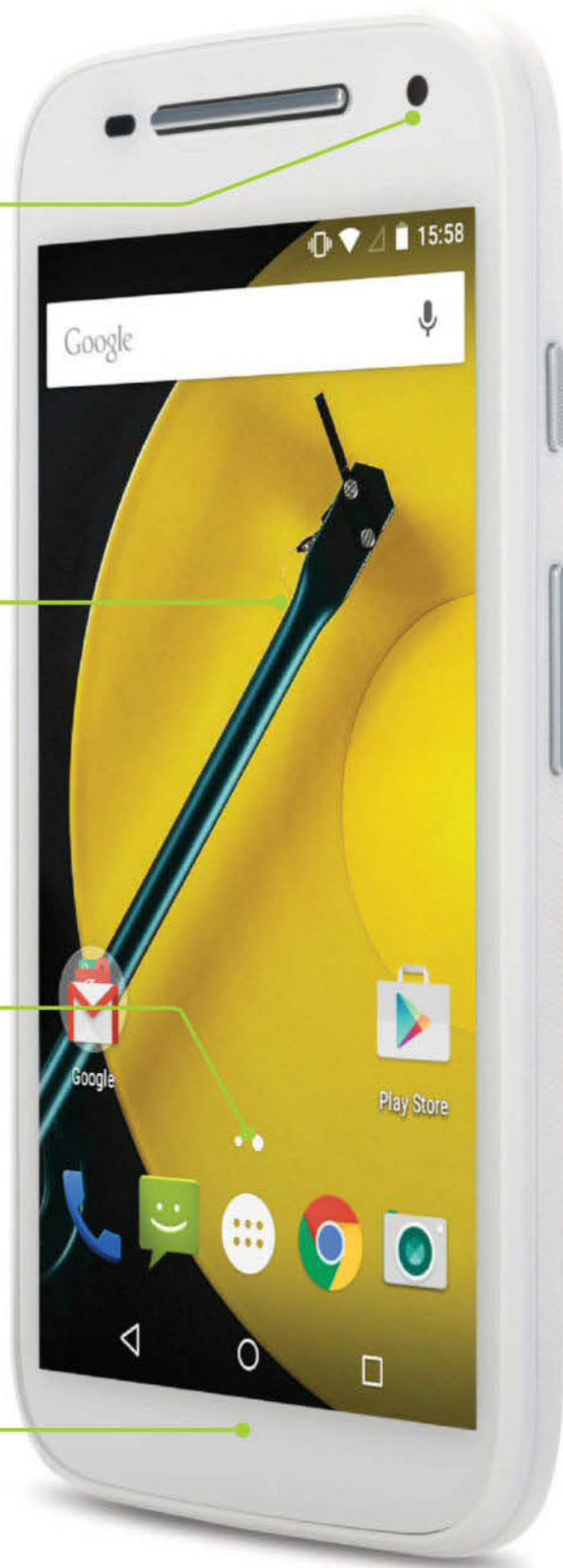
The new 4.5-inch qHD screen offers 245ppi, has a smudge coating and is protected behind Gorilla Glass 3. However, it still feels very small in a phablet world

The latest Android

The new Moto E ships with Android 5.0 Lollipop straight out of the box. Running near stock Android, one of the great things about Motorola devices is that they all get OS upgrades quickly

Style on a shoestring

The Moto E 4G comes in two different colours. You have the choice between white or black. While it looks quite good, the bezel is very thick



with heavy use, which is an excellent achievement. The new Moto E's battery is even larger, boasting 2,390mAh. It delivers a full day's charge, even with the extra demands of LTE connectivity and more powerful processor, so Motorola has succeeded again.

The look and feel of the Moto E 4G is extremely budget with a white plastic body but it doesn't feel nasty at all. It's comfortable to hold, with pleasing rounded edges and roughened edges to make gripping easy. But the bezel is a

little on the large side and makes the 4.5-inch screen look even smaller than it is.

However, for all these minor gripes, what we're left with is a really low-priced phone for upper-mid range specs. Although the selfie camera is a disappointing and you are occasionally left hanging around waiting for pages to load, this is a neatly packaged phone with specs and a battery that you can really write home about and we'd strongly recommend if you're on the look out for a low-priced mobile. ■

Information

Motorola Moto E

£109 / \$119

» More information motorola.co.uk
» Supplied by **Motorola**

Best deal



£13.50
per month
(contract)



£14.99
per month
(contract)



£17
per month
(contract)

Technical specs

- » Operating system..... **Android 5.0 Lollipop**
- » Processor..... **Qualcomm Snapdragon 410 1.2GHz quad-core**
- » Memory..... **8GB storage / 1GB RAM**
- » Dimensions..... **129.9 x 66.8 x 12.3mm**
- » Weight..... **145g**
- » Display size..... **4.5-inch**
- » Display resolution..... **960 x 540 (245ppi)**
- » Front camera..... **0.3MP**
- » Rear camera..... **5MP (f/2.2)**
- » Connectivity..... **4G, Bluetooth 4.0**
- » Expansion slot..... **microSD (up to 32GB)**

Battery life

The battery offers 2,390mAh, which is easily enough to give you a full day's use

Good for

Battery life

You are highly unlikely to have to search for a socket mid-afternoon thanks to the all-day battery

Value for money

The Moto E (2015)'s specs are excellent for a fraction of the cost of a flagship phone

Bad for

Processing speed

Despite upgrading to a quad-core processor there are some noticeable delays in transitions

Design

It's certainly not the worst we've ever seen but the white plastic looks and feels tacky

Verdict

Despite some minor quibbles you are unlikely to get a better Lollipop phone for around £100



Expandable storage

The phone ships with a measly 8GB storage, which won't get you very far even if you're a light user. The Moto E does support an SD card, however, adding an extra 32GB to the total available

Moto Assist inside

While the Moto E runs nearly stock Android, it does include Moto Assist, which learns when you're sleeping to only let through VIP calls and can help respond to messages when you're driving



Lenovo Yoga Tablet 2

Can the inclusion of a kickstand help the Yoga Tablet 2 differentiate itself from the market?



If Lenovo's intentions were to stand out from the crowd with its Yoga Tablet 2, then it has achieved it for the most part. At its core this is a functional tablet, running an Intel processor with prices starting at the £199 price point (for the 8-inch version). It's a lot of tablet for your money, but are the cutbacks too apparent?

We tested the 10-inch version and its standout feature is easily noticeable as soon as you unbox the tablet. With the addition of a kickstand, the Yoga Tablet 2 can be placed in various positions, which is surprisingly sturdy even when used in the most extreme angles. It's bulky, though, and adds a considerable amount of weight to what is already a fairly large tablet, but it definitely makes the tablet easier to hold.

Both the power button and 3.5mm jack reside on either end of the kickstand, which leaves only the volume rocker and microSD port sitting on the side and back of the tablet respectively. It's a classic arrangement, but there's something oddly appealing about the enlarged power button used here. In some ways that odd appeal does expand to the design of the kickstand, which complements the silver variant of the tablet we tested, but it'll certainly split opinions depending on your personal tastes.

A common cutback on cheaper tablets is the display, but for the most part, Lenovo has equipped the Yoga Tablet 2 with a decent offering. Colours are bright and vivid, while the 1920 x 1200 LCD screen offers decent viewing

angles without being overly spectacular. Pixilation can be an issue in some areas, and some of the most graphically-demanding apps lack the finesse you'd find in higher priced offerings.

With the power of a quad-core Intel Atom processor and 2GB RAM at its disposal you'd expect a near faultless browsing experience, but that simply isn't the case. Lag can be common; especially during the animation sequences that Android 4.4 uses frequently, but this seems largely down to Lenovo's own custom skin rather than any core issue with the tablet itself. Lenovo has never really nailed its own custom skin and it shows here. What we were pleased to see, however, is the company's own multitasking software, which enables users to run multiple

apps simultaneously. The choice of apps is limited to the likes of Chrome, Email and Gallery for now, but everything worked without fault during our extensive tests.

No matter if you plump for the 16GB or 32GB variant of the Yoga Tablet 2, you'll find 5GB of bloatware slapped straight on to it out of the box – and none of it's worth keeping. While most of it can be uninstalled, it wastes time that could be better spent on other things. However, the handy microSD port is always there to help you if you need a storage boost. If you decide to keep most of the bloatware, you can pretty much say goodbye to any chances of the Yoga Tablet 2 lasting a day of use. While Lenovo has said that you can expect around 18 hours of battery life from the tablet, in practice this number is very

ambitious. On low usage we reached the 11-hour mark with relative ease, but when watching videos we only managed half of this. It's important to note, however, that these numbers exceed many of its similarly-priced competitors.

By no means is the kickstand on the Yoga Tablet 2 a gimmick, in fact it's one of the leading features. But not so much so that it can make up for the performance issues the tablet occasionally suffers. Unfortunately problems do seem to continually crop up in Lenovo's tablets, and while the Yoga Tablet 2 is by no means a bad device, it just doesn't bring anything new to the market. There's plenty to be done to make the Yoga series something that every Android enthusiast needs to check out, but for now this is a solid effort from Lenovo. ■

Easy to handle

Another benefit of the end roll and kickstand is that it makes it very easy to hold the tablet for long periods of time. It's important to note that the tablet is on the heavy side, however



Information

Lenovo Yoga Tablet 2

£249.99 / \$249

» More information lenovo.com
» Supplied by **Lenovo**



Technical specs

- » Operating system..... **Android 4.4**
- » Processor..... **Intel Atom 1.33GHz quad-core**
- » Memory..... **16-32GB storage / 2GB RAM**
- » Dimensions..... **255 x 183 x 7.2mm**
- » Weight..... **619g**
- » Display size..... **10.1-inch**
- » Display resolution..... **1920 x 120 pixels (190.47ppi)**
- » Front camera..... **1.6MP**
- » Front camera..... **8MP**
- » Connectivity..... **3G, Wi-Fi, Bluetooth 4.0**
- » Expansion slot..... **microSD up to 64GB**

Battery life

While the battery lasts less than the quoted 18 hours, the 9,600mAh still offers plenty of use between charges

Good for

Useful kickstand

The kickstand goes beyond a gimmick and happens to be a helpful feature to have

Value for money

You're certainly getting a lot of tablet for the cheapest, 8-inch £199 / \$199 variant

Bad for

Slick usage

Clunky performance when navigating the tablet leads to some frustrating moments

Bloatware

Included bloatware is some of the worst we've seen, but most of it can be uninstalled

Verdict

A strong design ethic can't save the Yoga Tablet 2 from some noticeable performance issues



Kickstand bonus

The adjustable kickstand is great for keeping the tablet at various angles when in use. Even at the most extreme angles, the stand remains completely sturdy thanks to its metallic build

Toshiba Chromebook 2

Is the crystal-clear screen display enough to make this stand out from the crowd?

Screen quality

This is one of the most stunning screens we've seen on a Chromebook, with a full HD screen sporting a ppi count of 165. The pixel density is good, but it's the colour range that is really the striking feature

Rough and smooth

Although the top and bottom of the device both have the slightly roughened texture caused by hundreds of tiny dimples, the inside is smooth, sleek and shiny. This makes carrying and typing very comfortable and lets it stand out from the crowd

Port power

On the right-hand side of the Chromebook 2 is a USB 2.0 port, charger input and SD card slot. The left-hand side is home to a USB 3.0 port, HDMI input and headphone jack

Sweet sounds

The speakers in the Chromebook 2 are made by Skullcandy, the well-renowned headphone and speaker manufacturer. They provide powerful audio despite being hidden away. Sound quality is even good through the headphones but for the full experience, crank up the volume and give it a blast

Toshiba's first Chromebook was a huge success, teaming affordability with excellent design and specs. The company returned this year with a similar-looking model but with a spec upgrade that Toshiba hopes will enable it to compete with the likes of Google's Chromebook Pixel, currently the standard-setter for Chromebooks. However, seeing as the Pixel is over three times the price of the Toshiba, it isn't a particularly fair comparison so it is really up against the likes of the Asus C300 and the Acer Chromebook 15.

Taken straight out of the box, the Toshiba holds the advantage. It is finished in silver, much like the Pixel, but has a dotted effect that makes it look a little bit different from its rivals. We have to admit that we are bigger fans of the

sleek, smooth look but the textured dots do make the Chromebook easier to hold.

In addition to the improved grip, the Chromebook 2 is lighter than its predecessor and most other models at just 1.35kg. It's also slim at 19.3mm, which makes it easy to carry around. The 13.3-inch screen also strikes a pleasing balance between size and usability, as an 11-inch screen can be too small, while 15-inch screens result in heavier machines.

The screen is a gorgeous full HD 1920 x 1080 affair and the quality really shines through. It is bright, beautifully sharp and has an excellent range of colours to satisfy all users. In terms of screen quality it can be favourably compared to even the Pixel, which is a great compliment.

The one area in which it's lacking is processing power. Although it has the traditional lightning Chromebook boot-up time, it becomes a little jerky and stilted when scrolling through web pages. It doesn't majorly affect usage but is a little frustrating, especially when the main draw of the Chromebook is that the streamlined, web-based nature of the machine should reduce lag and burden on the processor.

Another point that should be noted is the camera. If you are in a web chat you are going to have to choose your positioning pretty carefully as when we were backlit, we were completely silhouetted. Eventually we managed to rotate it so we could be seen but this was an issue we hadn't come across before with the other

Chromebooks we've tested. If you are someone who Skypes a lot, then this is definitely something you need to consider.

Using the Chromebook 2 is an enjoyable experience, although the keyboard keys are marginally too light and flat. You are sometimes left wondering whether you have actually hit one or not! A bit more resistance and feel would be very useful here. The trackpad is on the large size and pleasingly responsive to the touch. Again, this is only a very marginal issue but it would have been nice if it had sat a tiny bit higher in its housing. At least it felt secure, though, and the overall user sensation falls just short of excellent.

The Chromebook 2 comes with 4GB RAM, which is easily enough for the average user and will also cope well with light gaming. The 16GB storage doesn't sound like a lot, but the point of the Chromebook is for pretty much everything to be stored in Google Drive so Toshiba's offering isn't stingy at all.

The Chromebook 2 is a pretty good all-round device. The processor can be a little slow and the camera is poor at dealing with back lighting, but overall this is a nicely made machine with reasonable specs and a simply stunning screen. It may not be a good choice for the hardcore technology user, but it certainly is an attractive, reasonably priced option. ■

Information

Toshiba Chromebook 2

£234 / \$329

» More information toshiba.co.uk
» Supplied by Toshiba



Technical specs

» Operating system.....	Chrome OS
» Processor	Intel Celeron 2.16GHz 64-bit dual-core
» Memory.....	16GB storage / 4GB RAM
» Dimensions.....	320 x 214 x 19.3mm
» Weight.....	1.35kg
» Display size	13.3-inch
» Display resolution.....	1920 x 1080 pixels
» Front camera.....	HD web camera
» Connectivity.....	Bluetooth 4.0
» Expansion slot.....	SDcard slot

Battery life



The 3-cell lithium ion battery will give you a fairly average performance of nine hours of use

Good for

Screen quality

The depth of colour and sharpness of the Full HD 1920 x 1080 screen is fantastic

Design

The Chromebook 2 is a lightweight device, stylishly designed with a love it or hate it textured finish

Bad for

Camera

Face the wrong way and you are plunged into darkness, an issue we haven't seen before

Processing power

The 2.16GHz Intel Celeron processor sometimes isn't quite up to task, even with Burst Technology

Verdict

The second Toshiba Chromebook is one of the better models in its price bracket; it's a solid all-rounder

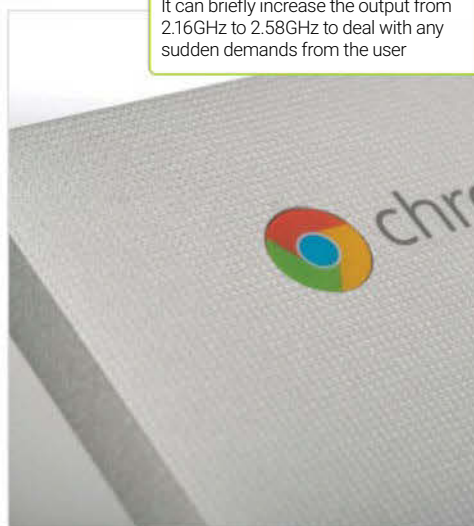


Energy star

The Toshiba has been awarded an Energy Star, an international symbol for a product that uses 20 to 30 per cent less energy than the required standard. This should result in lower running costs for users of the laptop

Supercharged performance

If the Chromebook 2 is struggling a bit with its workload, Intel's Burst Technology 2.0 can up the power a bit. It can briefly increase the output from 2.16GHz to 2.58GHz to deal with any sudden demands from the user



Spin me right round

With a speaker and microphone fitted at either end of the handset, plus a screen that rotates, it doesn't matter which way you take the Idol 3 out of your pocket

Speedy launcher

While many mobiles have a quick launch facility from the lock screen for the camera and maybe Google Now, the Idol 3 presents five options from the lock screen so you can whizz straight to your preferred task



Power position

Unlike almost all other phones, the power button is on the left of the phone and the volume button on the right. It doesn't take too long to get used to it but it is a strange design choice nevertheless

Sounds great

The dual 1.2 W front-facing speakers are made by JBL, renowned for their sound systems. The Idol 3 also uses Harmon's Clari-Fi software, which restores natural sound to compressed files like MP3s

Information

Alcatel OneTouch Idol 3

£210 / \$249.99

» More information alcatelonetouch.com
» Supplied by Alcatel OneTouch

Best deal

O ₂	E _E	vodafone
£10 upfront	10 upfront	£16 upfront
£18.50 / month	£14.99 / month	£17 / month

Technical specs

» Operating system	Android 5.0 Lollipop
» Processor	Qualcomm Snapdragon 410 1.2GHz quad-core
» Memory	8GB storage / 1.5GB RAM
» Dimensions	134.6 x 65.9 x 7.5mm
» Weight	110g
» Display size	4.7 inch (312ppi)
» Display resolution	1280 x 720 pixels
» Front camera	5MP
» Rear camera	13MP f/2.0
» Connectivity	4G LTE, Bluetooth 4.0
» Expansion slot	microSD (up to 128GB)

Battery life



The battery life is fairly average as the 2,000mAh battery just gives you a day's use

Good for

Screen sharpness

Over 300ppi is a great achievement for a mid-range phone – it's sharp, clear and colourful

Listening to music

Dual speakers provide surround sound while Clari-Fi software ensure its of best possible quality

Bad for

Built-in storage

8GB is way less storage than you would expect to get in a phone of this price

Custom skin

OneTouch Stream isn't as good as Google Now and the UI design looks very old fashioned

Verdict

A pretty attractive, well built phone with good specs but certainly not worth the price tag



Alcatel OneTouch Idol 3

With front-facing speakers, can the Idol 3 offer more bang for your buck?

Alcatel OneTouch is slowly building up a reputation as a solid, reliable low-end phone manufacturer. Ranges such as the Pixi and Idol are unspectacular but solidly built and not that pricey. However, the Idol 3 seems to have broken the mould somewhat, breaking into mid-range territory where it comes up against the likes of the ZTE Blade S6 and the Asus ZenFone 2.

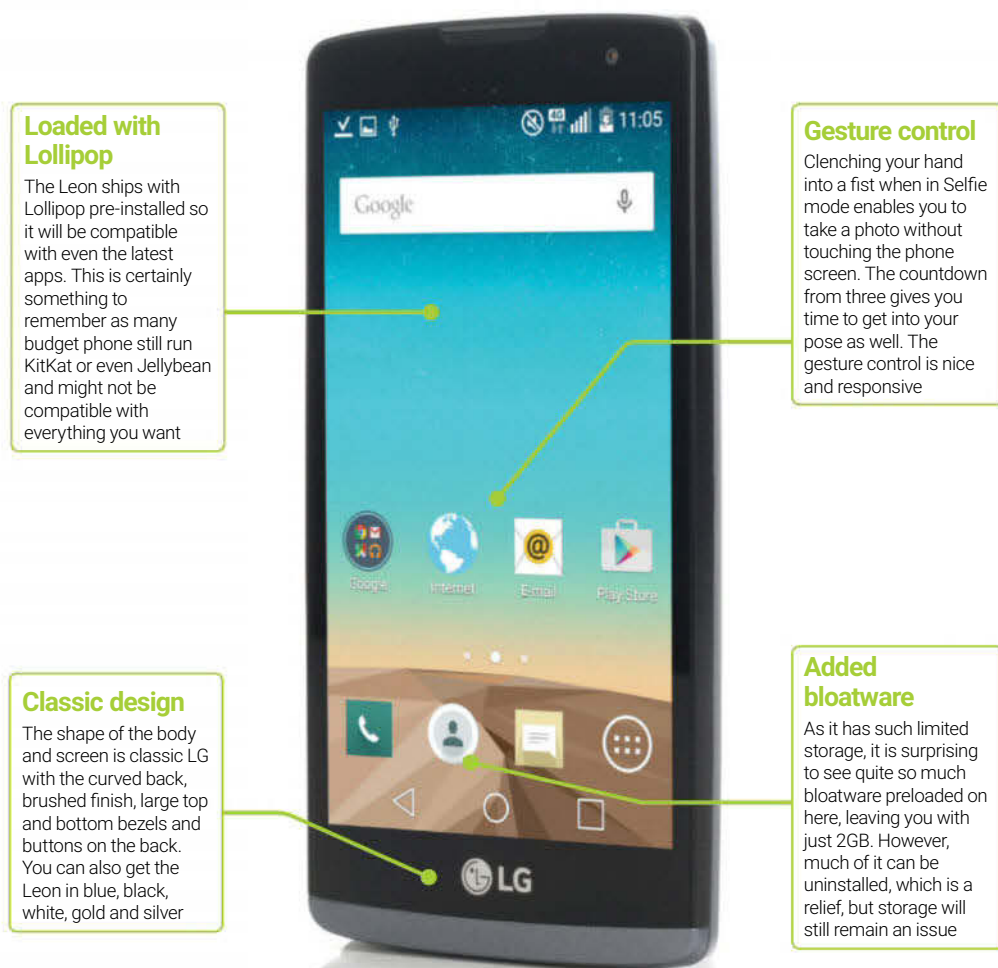
Alcatel OneTouch has brought out two versions, one with a 4.7-inch screen and another with a 5.5-inch screen. We tested the 4.7-inch version, which has slightly inferior internals to its bigger brother, apart from the rear-facing camera.

However, the spec sheet still reads pretty well. The 1.2GHz Qualcomm Snapdragon processor is gutsy and runs everything quickly. We ran a handful of common apps at the same time and didn't notice any slowdown, so that's a very big tick for the Idol 3. The screen is an impressive 312ppi and it felt crisp and clear when watching videos, pictures or browsing the web.

The cameras are both absolute joys. With 13MP on the rear and 5MP on the front, you can take excellent pictures in an instant as the auto

focus is extremely responsive. It even took decent low-light photos and comes with stock Android features such as Beauty Face and Panorama mode. However, you can't take too many because the storage is fairly paltry at just 8GB, halved to 4GB once all the pre-loaded apps are considered. Although it can be boosted with an SD card, for the price Alcatel OneTouch is charging, you'd expect storage to be at least double that. The pre-loaded apps, beyond the standard Google suite, are good ones, such as Shazam, Deezer and Evernote. However, we aren't fans of the custom skin over the top of Android Lollipop, which has rounded app icons and replaced Google Now with the manufacturer's own OneTouch Stream, a service that tells you the weather, humidity, top news and featured apps. It's not exactly badly designed but doesn't feel anywhere near as personal as Google Now.

This is a pretty good phone and is enjoyable to use, but for the price you'd be much better served paying a little extra for the 5.5-inch or getting the wonderful Asus ZenFone instead.



Loaded with Lollipop

The Leon ships with Lollipop pre-installed so it will be compatible with even the latest apps. This is certainly something to remember as many budget phone still run KitKat or even Jellybean and might not be compatible with everything you want

Gesture control

Clenching your hand into a fist when in Selfie mode enables you to take a photo without touching the phone screen. The countdown from three gives you time to get into your pose as well. The gesture control is nice and responsive

Classic design

The shape of the body and screen is classic LG with the curved back, brushed finish, large top and bottom bezels and buttons on the back. You can also get the Leon in blue, black, white, gold and silver

Added bloatware

As it has such limited storage, it is surprising to see quite so much bloatware preloaded on here, leaving you with just 2GB. However, much of it can be uninstalled, which is a relief, but storage will still remain an issue

LG Leon 4G

Could LG's lightweight Leon be your next budget phone?

The budget phone market is starting to get very cramped, with established Android manufacturers jostling with start-ups from China and India. Into this market comes the LG Leon 4G, the phone that hopes to seduce users with fairly high specs but a very low price tag.

The internals of the Leon are pretty good. It runs off a Qualcomm Snapdragon 410 1.2GHz quad-core processor, houses a 1,900mAh battery and features a 5MP rear-facing camera. None of these will have you falling off your chair in amazement, but for a phone that you can get on a £7.50 per month contract with no upfront cost, they are close to excellent.

Style-wise the Leon follows the tried-and-tested LG formula very closely. It is fairly squared off around the corners and has a slightly curved back, helping it to sit very nicely in the hand. As LG customers are used to by now, the power and volume buttons are on the back, rather than down the sides and this is very easy to get used to. At 130 x 69mm and just 140g, this is a really comfortable phone to use one-handed as it is both small and light. The plastic backing may be a tad scratchy but it has just enough roughness to feel secure when you're holding it.

It's a nippy device, comfortably navigating games, videos and multi-tasking. We didn't notice any slowdown or lag, so thankfully it

seems that LG hasn't stinted on quality when it comes to the processor.

The screen as well is superb. The 4.5-inch screen delivered 218ppi, which is really dense for this level of phone. Even when playing videos we didn't notice any lack of clarity, which is sometimes a problem with budget phones.

So where has LG made savings? Certainly the cameras aren't high end, with 5MP on the rear and just 0.3MP on the front. Despite the lack of megapixels the rear-facing camera is a delight to use. It focuses quickly and produces images worthy of a camera in a much more expensive phone. It is let down by the front-facing camera which is as low-res as it sounds, but it's a worthy trade for an impressive rear camera.

One major problem with the Leon is the storage. It comes with just 8GB. Once all the pre-loaded apps are taken into consideration you're left with less than 2GB, which will get eaten up in no time. There is room to add a microSD card to add up to 32GB storage, so there is some wiggle room if you plan on downloading much in the way of apps or taking photos or videos.

The LG Leon 4G excels in almost all areas apart from its storage woes and front camera, but on the whole this is certainly a phone for the light user to get a lot of value from.

Information

LG Leon 4G

£119.99 / \$139.92

» More information lg.com
» Supplied by Vodafone

Best deal



£14.99
per month
(Free up front)



£18.50
per month
(£9.99 up front)



£17
per month
(£29.99 up front)

Technical specs

- » Operating system..... Android 5.0 Lollipop
- » Processor..... Qualcomm Snapdragon 410 1.2GHz quad-core
- » Memory..... 8GB storage / 1GB RAM
- » Dimensions..... 129.9 x 64.9 x 10.9mm
- » Weight..... 140g
- » Display size..... 4.5-inch (218ppi)
- » Display resolution..... 480 x 854 pixels
- » Front camera..... 0.3MP
- » Rear camera..... 5MP
- » Networks..... 4G, Bluetooth 4.0, Wi-Fi
- » Expansion slot..... microSD (up to 32GB)

Battery life



As long as it isn't under too much strain, the 1,900 mAh battery should just last you a day

Good for

Screen quality

We really enjoyed looking at and using the vibrant, sharp screen, which belied its 220ppi density

Comfort

It felt great to hold and could be comfortably used single-handedly; made in classic LG style

Bad for

Taking selfies

A 0.3MP camera is just not good enough as shown in the grainy images it produces

Lack of storage

8GB is paltry, made even worse by excessive bloatware that has to be uninstalled

Verdict

This is a well-built budget buy with many excellent features, but the lack of storage is a massive issue





Colour ePaper display

As on the original Pebble, the Time uses a low resolution ePaper display which is actually a different name for a LCD, not to be confused with Kindle-style e-ink. Once again the screen is fantastic outdoors but distinctly average in low light

It's now curved!

The original Pebble wasn't uncomfortable to wear but like most smartwatches, it wasn't particularly comfortable either. The Pebble Time has a curved plastic back, which makes it sit much better on the wrist. The improved fit is very noticeable over longer periods

Added functionality

The Pebble accepts standard 22mm watch straps. The included strap has clever quick release pins – expect to see a market for these springing up very soon. 'Smartstraps' connect to hidden pins on the device enabling them to add extra functionality to the watch

Pebble Time

After another blockbuster Kickstarter campaign comes a new Pebble... but has the smartwatch world moved on?

Back in 2012, smartwatches weren't cool and nor was crowdfunding. Yet a small start-up company called Pebble put both on the map, raising \$10 million to help launch its cross-platform, monochrome screened, plastic device. While not perfect, the watch charmed with its fantastic battery life, good selection of apps, and – thanks to that innovative ePaper screen – brilliant outdoor visibility.

The original Pebble was joined by a more solid Pebble Steel in early 2014, but we now have the real successor to the original device – the Pebble Time – once again funded by Kickstarter.

The Pebble Time upgrades the original in the one area that it's needed most – the screen. It retains the ePaper display at the same resolution as before, but adds support for 64 colours. It also makes strides in design, comfort and functionality, with a new timeline-based user interface and the addition of a microphone for simple voice notes and voice replies in supported apps. It doesn't, however, offer full voice control in the style of Android Wear.

Both plastic and steel versions of the Pebble Time are available, however even the plastic version includes a steel bezel around the Gorilla Glass protected screen, something that should

aid durability. Sadly, this is not proving to be the case – some owners are reporting that the bezel of the device is extremely prone to scratching.

The software improvements at least are very impressive. Voice dictation works better on the Pebble Time than any other smartwatch we've used and it adds a genuinely useful aspect to the device. Interaction with the watch remains primarily via three buttons on the right and the back button on the left – still no touchscreen. The updated OS, as well as introducing the new time-based interface, also adds a much increased level of overall polish – graphics and animations are high quality throughout.

The original Pebble came to market with little competition, but the latest version doesn't have the market to itself, either on Android or iOS. The design changes make the watch feel more modern than its predecessor, but unfortunately the screen upgrade really isn't enough – particularly indoors with the backlight activated (achieved with a flick of the wrist), colours look washed out and the low resolution is evident, accentuated by the large black border. This issue is augmented by the price; the Pebble Time, even in non-steel guise, is not a cheap option, despite sometimes feeling that way. ■

Information

Pebble Time

£179 / \$199

» More information getpebble.com
» Supplied by Pebble



Technical specs

- » Operating system..... Pebble OS
- » Processor..... 180Mhz ARM Cortex M4
- » Memory..... 128MB RAM
- » Dimensions..... 40.5 x 37.5 x 9.5mm
- » Weight..... 42.5g
- » Display size..... 1.25-inch Color ePaper with Gorilla Glass 3
- » Display resolution..... 144 x 168 pixels
- » Connectivity..... Bluetooth 4.0
- » Expansion slot..... Pebble Smartstraps

Battery life

Despite its tiny 150mAh battery, the Pebble Time's 'up to 7 days' battery life embarrasses other smartwatches

Good for

Wearing while swimming

The Pebble Time is water resistant to 30 metres and has apps available for tracking swimming

Using for sleep tracking

The Pebble Time can be used at night when other smartwatches are on charge or just too big to wear

Bad for

Showing off

While you can boast about battery life, the Pebble Time doesn't look as impressive as the latest Android Wear

Games or photos

The low resolution screen means graphically intensive functions such as games or photos don't work well

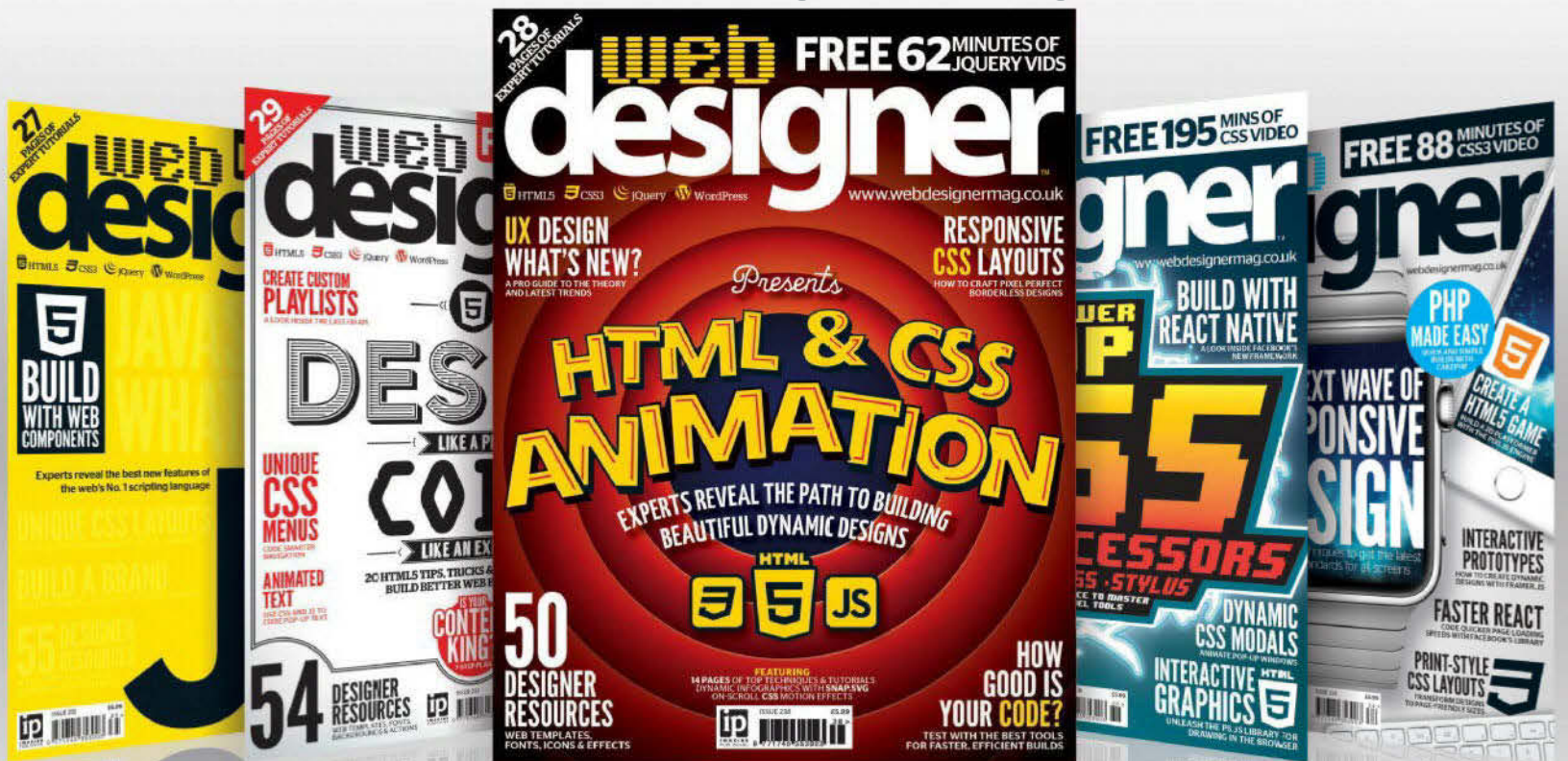
Verdict

The Pebble Time has strengths around size, battery and voice recognition, but the display feels dated and build quality is proving to be a concern



BUILD A BETTER WEB

www.webdesignermag.co.uk



web designer

Available
from all good
newsagents and
supermarkets

ON SALE NOW

The art of HTML & CSS animation | What's new in UX design | Build your own API



BUY YOUR ISSUE TODAY

Print edition available at www.imagineshop.co.uk

Digital edition available at www.greatdigitalmags.com

Available on the following platforms



facebook.com/webdesignermag



twitter.com/webdesignermag

Tylt Vü

Tylt puts a whole new angle on the wireless charger

Embraced by the Samsung Galaxy S6, Nexus 6 and many other new handsets, Qi wireless charging is increasing common. Tylt's new Vü Wireless Charger offers a stylish stand to rest and recharge your device.

The Tylt Vü holds your phone at a 45-degree angle so you can pop it in the cradle and always be able to see your screen. This is really convenient for quickly checking notifications without removing it from the charging pad. Underneath the charger is a green light glows while your device is charging. Oddly though, it is actually hidden beneath the cradle, so it isn't easy to view at a glance. This will stop its glow being too disturbing at night, but a little more visibility would have been useful.

Under the smooth matt finish are three charging coils. This means you can pop any Qi-compatible phone on there and it will start charging straight away. This is a real advantage over a number of charging pads that require you to shift them around until you find a position that will take the charge.

At £70, the Tylt Vü is more expensive than a lot of other Qi chargers, but it looks great and works well, with only a slight question mark hanging over the placement of the charging light.

» Price £69.95/\$79.99

» More information tylt.com



The charging cable feeds into the back without spoiling the design



The charging light is awkwardly placed beneath the stand



Multi-directional

Such is the power of the Vü's triple coil system that your phone will charge in portrait or landscape mode. This means that you have a wide range of positions your phone can be in while it charges

Colour co-ordination

The Vü comes in four vibrant colours: black, red, blue and yellow. All are still the same price so it's a matter of personal preference, but the charging light remains the same

Non-Qi handsets

If you own a Galaxy Note 3, Note 4 or Galaxy S5, you can buy a Vu-Mate card to slip into your phone and turn it into a Qi-compatible handset

Bayan Audio SoundScene

Keep your whole house connected with Bayan Audio's SoundScene

Bayan Audio's connected SoundScene speaker set can link up to eight speakers in one network at a distance of up to 100 feet. Each speaker weighs 2.2kg and stands 27cm tall so they can't exactly be called inconspicuous. We like the striking design but the rubber ends and big floppy handle on the side are certainly a bit of a style faux pas. The fidelity is excellent with near instant streaming between devices. We were able to walk well into the next room before the stream to the primary speaker began to get a bit jumpy, which is actually pretty good going.

Several connected Bluetooth speakers offer the ability to instantly jump from one to the next when you move rooms. Unfortunately the SoundScene doesn't have this feature, so if you go from the lounge to the kitchen you'll need to leave your phone to keep the music going. However, you can connect more than one device to the network so someone could be listening to their music upstairs while you're listening to different tunes downstairs. Another issue is that the volume is cranked right up when you first turn it on. The SoundScene is a pretty good speaker set but you can probably find better elsewhere.

» Price £179.99/\$199.99

» More information bayanaudio.com



Waterproof

The SoundScene speakers have a waterproof rating of IPX4. This means that it is resistant to splashes of water but not to anything greater than that and it has no dust protection either

Party all night

A fully-charged speaker should be able to last around eight hours of music playback without having to be plugged in. This makes it ideal for a garden barbecue

High fidelity

There was barely any difference between the audio streaming from the two speakers we tested, so you won't be hearing any echo when you are enjoying your favourite tunes



Kodi Turn your Android device into a media centre

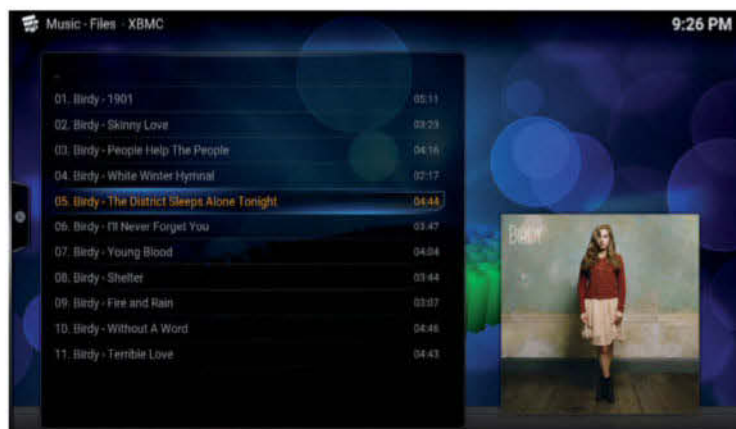


Formerly known as XBMC (Xbox Media Center), Kodi is a free and open source

software media player and entertainment hub. While it offers a great deal of functionality, its main purpose is to stream content from and to other devices also running Kodi. Available on nearly every platform under the sun, Kodi has just been released as an Android app; this follows months of user testing and it's still described as a beta version. It is a faithful port of the full Kodi system, however, and looks and works identically to its computer counterpart. Although designed mainly for Android set-top boxes, such as the Nexus Player and Fire TV, the app will work fine on tablets and larger phones with a powerful enough chipset. One downside to mobile use is that there's no built-in Chromecast support, although you can always use Lollipop's Cast Screen option as a workaround to beam it to your TV.

To stream content, you'll first need to set up a Kodi server on another device, usually the main computer where you store all your media files. You can then 'discover' the server as a UPnP device in the Android app and browse and play its content remotely via the Videos and Music tabs. It sounds straightforward, but we encountered a few quirks. For instance, our music library was empty until we scanned the tracks to the library on the Kodi server. Kodi scrapes detailed information, such as film credits, from internet sources for each media file, although we still found that many music tracks lacked artwork. More importantly, playback of music and videos was smooth and of high quality. One thing to note is that while numerous file formats and codecs are supported, video does need to be DRM-free, so you may have to convert it first (not that we endorse that, of course).

As well as offering a versatile setup – with the option of multiple servers and clients – Kodi is itself



Listen to any song on the server, including those in its iTunes library

highly customisable. Its interface can be changed by switching to a different 'skin', of which several are available. Functionality can be expanded via a whole range of add-ons, many developed by third parties. These add access to an incredibly long list of video and music streaming services, as well as extra functions such as lyrics, TV guides, games, quizzes and weather reports. You can even stream live TV and recordings from your own DIY PVR system, via support for back-ends like NextPVR, Myth TV and Tvheadend. With a bit of jiggery-

pokery, we also managed to hook it up to a DigitalStream Freeview PVR to stream its recordings, although we had to add its Samba share manually (another quirk) and tweak some advanced settings to get it to play.

That's the thing with Kodi: you may need to fiddle around to get things working properly, but ultimately it's a powerful and adaptable system for all your media hub needs.

2 hour wonder

Want your money back? You've got 120 mins to decide!

- 0-40 minutes**
Fairly easy to start streaming from another device
- 40-80 minutes**
We've had to fiddle with a few settings for some content
- 80-120 minutes**
Once set up, it does the job well and is customisable

keep refund

» specification

Price **Free**

Designed for: Phone and tablet
Requires Android: 4.2 and up

» verdict

Performance

Design

Value

Overall, a brilliant media hub app, despite a few frustrating quirks



» best free alternative **PLEX** » This rival solution converts media on-the-fly to play on any device, but requires a subscription



Stream DRM-free video from your server PC or even a DIY PVR setup

Goalie – A Habit Tracker

Achieve your goals and set good habits

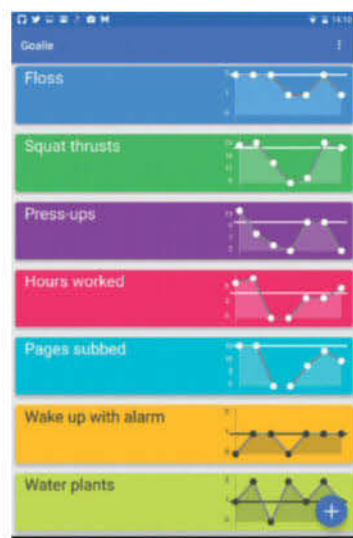


There are plenty of goal-tracking apps around, along with those that motivate you to build up a good habit streak by doing a certain task every day (such as flossing your teeth), plus countless reminder apps. To simplify matters, Goalie aims to combine all of these aspects into one handy app.

The clean interface of its main screen shows colour-coded cards for all the goals you've added. Simple gesture controls are used: swiping a card left or right will decrease or increase the goal count for the current day, making it quick and easy to input your daily data. Long-pressing enables you to rearrange the cards, or delete unwanted ones altogether.

One of Goalie's best features is the way it provides graphs as a

useful visual indicator to help you track your progress with each individual goal or habit. Indeed, for extra convenience, each goal card in the main menu includes a



miniature seven-day graph so you can instantly see your recent performance without having to open each card individually. Tapping a card reveals a larger graph showing 14 days at a time, along with stats for the current/best streak above the goal line (daily target) you've set – one slight flaw is that you can't set the streak to count days below a target for a bad habit, like eating sugar. You can also add reminders, quickly selecting from morning, afternoon, evening or night, or picking a time – and selecting the days of the week it should be active.

It's all very flexible and you can use Goalie to track whatever you like, then export the data. Free to download, it's limited to a maximum seven goals unless you make a one-off IAP of £1.55/\$1.99,

Each goal card features a weekly graph so you can instantly see your progress

which also removes the ads. While it isn't exactly groundbreaking, we have to say that Goalie is one of the easiest-to-use goal-tracking apps we've encountered.

» specification

Price Free + IAP

Designed for: Phone and tablet
Requires Android: 4.1 and up

» verdict

A versatile goal-tracking app that's very simple to use and manage



» like this? try this!

Habit Streak Plan
An effective motivational aid for building up streaks of achieving good daily habits

MixRadio Your personal music service



Originally developed by Nokia, this music streaming/discovery service has already proved to be a hit on Windows phones. This is no great surprise, considering it's completely free and boasts a library of over 35 million songs. It takes a similar 'personalised radio' approach to Pandora (not yet available in the UK). Upon launching the app, you're asked what genres and artists you like. You're then presented with My

Mix (plus other recommended ones) based on your answers. MixRadio continues to learn your preferences based on whether you like/dislike each track played. The playback screen is attractive, featuring a large artist photo, album art and simple controls. One limitation is that you may only skip six tracks per hour, although you can always switch to a new mix. Best of all, there are no ads and you can take mixes (up to four at a time) offline.

» **Price** Free
» **Designed for** Phone and tablet
» **Requires Android** 4.1 and up



Tap Like or Dislike for each track and MixRadio will learn your musical tastes



» **best free alternative** **6** **MUSIC RADIO – 6 SECONDS** » Search for artists/songs to find internet radio stations playing them – with no skip limit

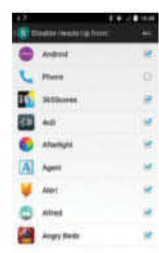
HeadsOff

Quickly disable Lollipop's heads-up notifications



While Android Lollipop has many benefits, not everyone likes the

heads-up notifications that pop up at the top of the screen and interrupt you. There is a way to disable them via the Settings, but HeadsOff makes it easier while offering a lot more flexibility – if you buy the ProKey (£1.50/\$1.99), you can disable heads-up notifications from individual apps. You can even



restore the old-fashioned ticker text in the status bar, although you do have to wait for it to finish before you can pull the panel down.

» **Price** Free + IAP
» **Designed for** Phone and tablet
» **Requires Android** 5.0



Hexy Launcher

An ideal home screen for hex maniacs?



An experimental app from SwiftKey Greenhouse, this replacement launcher

provides a different look and feel to your phone. It transforms the home screen into a scrolling canvas of hexagonal tiles with the most important apps in the middle. To make it easy to find what you need,



filter the apps by typing in the search bar. There's also a facility to add widgets to a separate screen. Hexy is fun for a change, but not all that practical.

» **Price** Free
» **Designed for** Phone and tablet
» **Requires Android** 4.0 and up



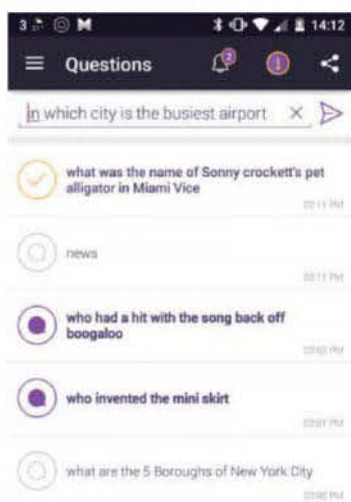
Light – Answering Engine

An app with all the answers



Got a burning question you need answered? Well, you could always Google it, but the Light app aims to go one better by giving you a straight answer. Well, that's the theory at least.

The app's user interface is basic: there's a space at the top to ask your question, with previous queries listed below. Just type or say your question and in most cases you'll receive an answer within seconds; for example, who was the third president of the USA? (Thomas Jefferson.) For some questions you may have to wait for verification from one of Light's pool of experts (which you can also join via the app), although you can still tap for related info which may well provide the answer. A nice touch is the ability to ask your question from the Notifications pane, where answers also appear. Light works for most questions that have a factual answer and can also be used to check things like prices and sports scores.



Ask anything you like, but it's best to stick to queries with a factual answer

- » **Price** Free
- » **Designed for** Phone and tablet
- » **Requires Android** 4.0 and up



Periscope Broadcast live video to the world



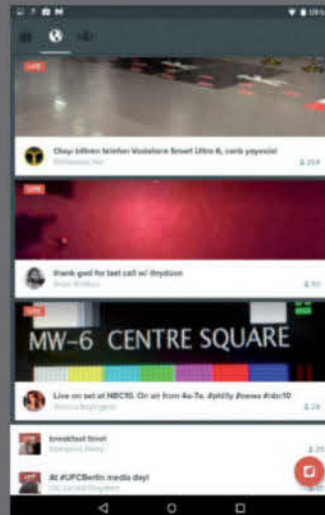
Every once in a while, an app will appear that everyone seems to be talking about; Periscope is the latest app to fall into that category and now it's on Android! Created by Twitter, Periscope enables anyone to broadcast live video from their mobile device. This has already led to some controversy, though, as it been used to film everything from police brutality to amateur porn and pay-TV boxing bouts.



Get a different perspective on TV news, plus amusing comments

After logging into the app via Twitter, you're invited to follow any of your current followers who also use Periscope. However, your main feed will likely be empty at first, since it only shows newly started (rather than current) broadcasts from users you follow. Any you've missed will also be listed below so you can replay them, but they vanish from Periscope's servers after 24 hours.

Switching to the global tab, you're greeted with a long scrollable list of current public broadcasts – sadly,



Check out the global feed to find live broadcasts from around the world

the iOS app's map view is missing. All aspect of human life may be found here, although we didn't encounter any nudity. Bar a few music concerts and behind-the-scenes views of TV news shows, it was mainly just people talking to camera and responding to comments typed in by viewers – it's a weird feeling when a broadcaster answers your question, making you aware of just how interactive the experience is. You can also tap the screen to send hearts and show you like what's



Start your own broadcast of anything – even a tour of the garden

Pounce Instantly identify products and buy them

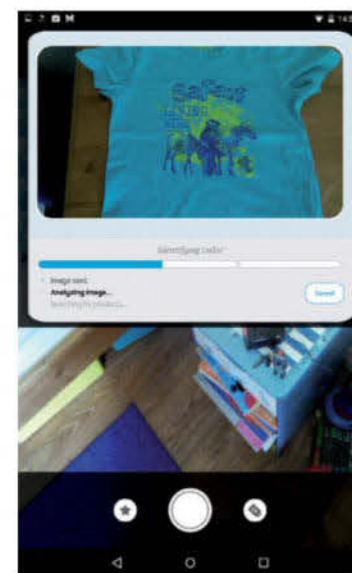


We've all experienced it; you're out somewhere, only to spot a cool outfit that someone's wearing, or a bag they're carrying that you like the look of. Instead of mustering up the courage to approach a complete stranger to ask where they bought it, you could discreetly take a swift photo and let Pounce perform a search for similar items.

The app isn't just for fashion items either, as it can be used to look for other products; indeed, it correctly identified our Ibanez electric guitar, for instance. It takes a little while to

analyse each image before coming up with the results. Unfortunately this doesn't always work and actually proved very hit and miss. If it does work, you can then add items to your wish list or tap them to be taken straight to the relevant retailer's US website (so it's of limited use elsewhere) to buy them. There's also an option to browse the latest deals from 25+ featured retailers.

- » **Price** Free
- » **Designed for** Phone and tablet
- » **Requires Android** 4.1 and up



It does take a little while to upload and analyse each image

» **like this?** try this!

» **THE HUNTER** » It relies on its style-savvy community to find the fashion items you're looking for

showing. Sadly, you'll also become familiar with the 'Trying to reconnect' message as most feeds seem to encounter some connection problems every so often.

When making your own broadcast, you can opt to make it public or only viewable by selected followers. You can toggle location sharing (but not audio) and whether a link is posted to Twitter, as well as restricting chat to users you follow. While streaming, you can switch between cameras at will. You can also opt to save broadcasts to your device's gallery.

» like this? try this!

Sire.am Watch and share live video, posting links to all of your Twitter followers and Facebook friends

» specification

Price Free

Designed for Phone and tablet

Requires Android 4.4 and up

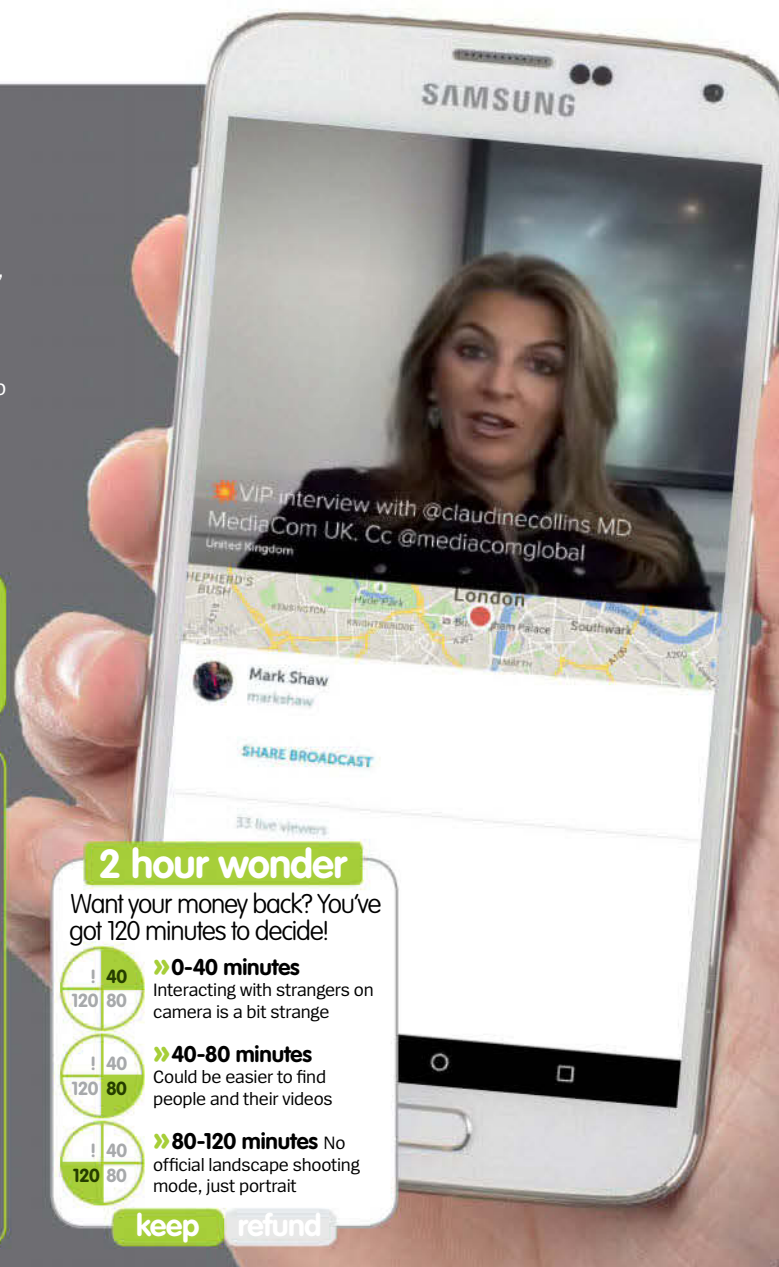
» verdict

Performance 

Design 

Value 

It is certainly a fun concept, but we feel it could be better implemented

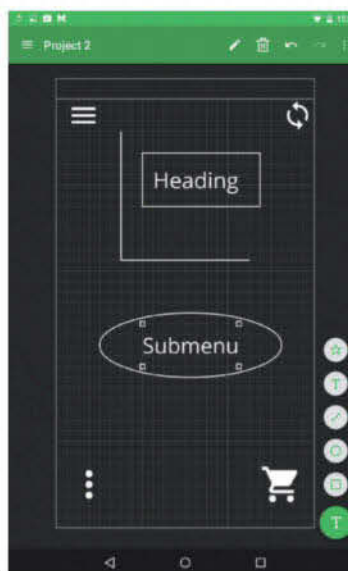


2 hour wonder

Want your money back? You've got 120 minutes to decide!

- 0-40 minutes**
Interacting with strangers on camera is a bit strange
- 40-80 minutes**
Could be easier to find people and their videos
- 80-120 minutes** No official landscape shooting mode, just portrait

keep refund



Quickly sketch your own app designs using the simple tools on offer

Wire Flow

Sketch up your app screen designs



This niche app provides a digital sketchpad to enable app designers to quickly create wireframe designs. However, it could also be employed by general users to create simple vector graphics or flowcharts to share.

Upon starting a new project, you're presented with a grid on which to start sketching. Tapping the bottom-right icon brings up five main tools, the first of which offers a selection of common Android icons, such as home, phone, dots and arrows. Other tools let you add text (just the one font), lines, circles/

ellipses and rectangles. To place an item, long-press the grid. This seems counterintuitive at first; tapping an item enables you to move (dragging) or resize (using the handles).

When adding new screens, you can duplicate any previous one, which saves time. Projects can be shared via a link – which can only be opened in the app and not a web browser – or separate PNG images.

- » **Price Free**
- » **Designed for Phone and tablet**
- » **Requires Android 4.1 and up**



» like this? try this!

DESIGNAPP GRAPHIC DESIGN » Quickly create your own logos using royalty-free vector elements and 600+ fonts

quickhits

5 top apps for...
Successful studying



Studystorm
Free + IAP

Watch video tutorials (some unlocked via subscription) made by top teachers in a variety of subjects. While it's US-centric, you should still be able to gain some useful educational insights.



SimpleMind
£3.42/\$4.53

This sophisticated mind-mapping tool should prove a useful revision aid, enabling you to note down facts and ideas and how they're connected. You can try out the free version first to see if you like it.



My Study Life Free

This cross-platform planner for students (and teachers) is essentially a specialist calendar and to-do list for your homework, classes and exams. All of the data is stored in the cloud in order to enable multi-device access.



StudyBlue
Free + IAP

Create your own sets of flashcards to help you remember all the facts on a subject and test your knowledge. Track your progress, collaborate with classmates, set reminders and study anywhere.



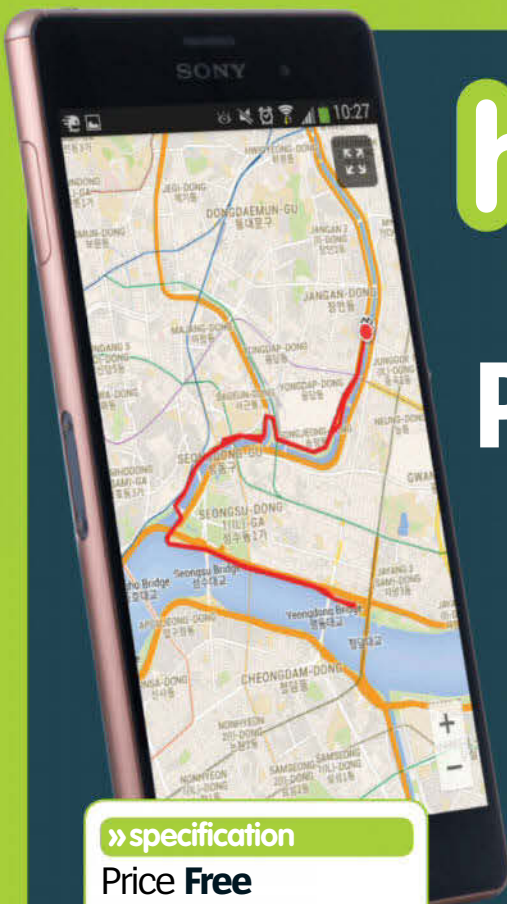
Collins Revision Number
£2.39/\$3.16

One of four Collins maths revision apps – along with Algebra, Geometry and Statistics – this useful app features video tutorials and real-life examples to help you revise and get better exam grades.



Check our website daily for even more app reviews

» www.littlegreenrobot.co.uk

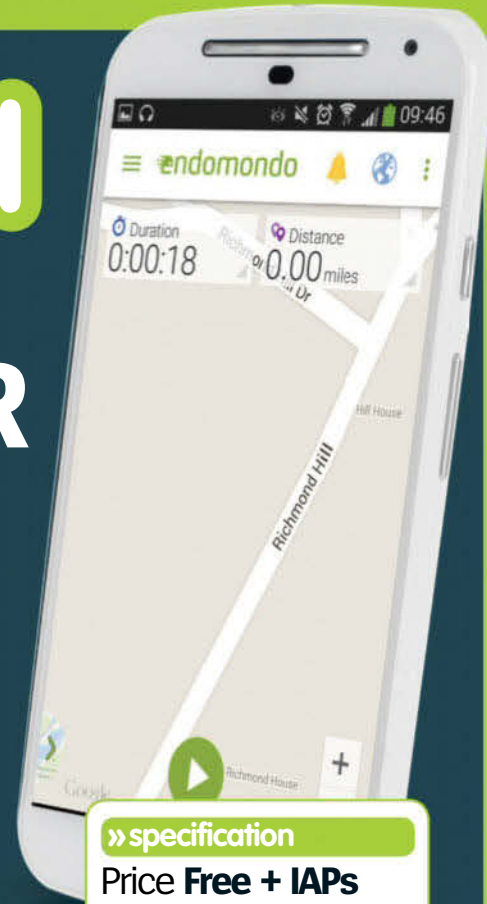


head to head

Which is the best app for getting you up and running?

POCKET RUNNER VS ENDOMONDO

With summer well and truly here, now is the time to embrace outdoor fitness. Pocket Runner and Endomondo are two of the most popular running apps on Google Play, but which one is the true Android fitness champion?



» specification

Price **Free**

Designed for: Phone and tablet

Requires Android: 4.0 and up



» specification

Price **Free + IAPs**

Designed for: Phone and tablet

Requires Android: Varies with device

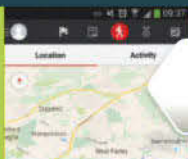
Pocket Runner GPS Run Cycle

Endomondo - Running & Walking

APP LAYOUT



The home page of Pocket Runner is a map, which isn't particularly useful when you're just about to start running, but would have been at the end of a run.



APP LAYOUT



Endomondo is ready and raring to work out right from launch. The home page has a huge Go button and your time and distance can be viewed easily.



Pocket Runner is fairly easy to find your way around, with five icons permanently at the top of the screen. Their function could probably be a bit clearer, however.



NAVIGATION



You navigate by a single hamburger menu that can dominate the page. It is word-based, rather than icon-based, which is easy to understand.



Once connected, Pocket Runner has a very basic layout, but we did like the fact that it informs you when it has successfully uploaded your run to your account.



ANDROID WEAR INTEGRATION



The on-screen interface is engaging, with an optional photo wallpaper along with your time and distance. But it also offers a simpler, battery-saving Always-on mode.



Every time you complete a challenge from the huge store it awards you a badge. Totally meaningless but an effective motivation to go that extra mile.



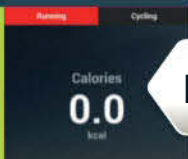
MOTIVATIONAL EXTRAS



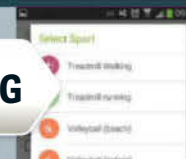
If your friends also use Endomondo you can set up challenges to add that extra bit of motivation to your run. It does rely on you knowing others that use it, though.



Pocket Runner is only useful if you are jogging or cycling, but considering the name, you shouldn't expect too much more from it.



BEYOND RUNNING



As well as running, Endomondo can track your performance at over 40 other sports, including cycling, windsurfing, and even roller skating.



And the winner is...



**ENDOMONDO -
RUNNING &
WALKING**

Most runners just want something they can tap and go, so Endomondo wins here. It is also great for those who want to track more than just running or cycling. But the badges on Pocket Runner are a great motivational tool, and are well suited to people that workout alone.

EXPERT **Apps** REVIEWS WHEREVER YOU ARE

NOW
100%
DIGITAL



DOWNLOAD THE FREE APP NOW



PES Club Manager

Sophisticated soccer management



Not to be confused with the PES Manager badge-collecting game (recently renamed PES Collection), this is a far more mouth-watering prospect for footie fans: a proper management game complete with real-time 3D match action using the engine from the console PES games.

Of course, PES (Pro Evolution Soccer) has an illustrious history on consoles and was once favoured by purists over the flashier FIFA. Part of its appeal is down to the detailed, accurate stats for real-life players. Apart from one star 'gift', however, you won't see any big names at the start of PES Club Manager. Instead, you begin your career with a team of journeymen in the lower leagues. In order to work your way up, you need to not only gradually upgrade your side through training and transfers, but also your ground and its numerous facilities. Some of the latter supply kits (medical,



Switch to 2D view for more info and stats, plus access to the Edit Team menu



The 3D match action is impressive, with handy tactical options along the bottom

motivation and stamina) and training points to use on players, while others increase the money earned from matches. Of the two main currencies, cash (GP) is readily available, but PES coins are harder to obtain – mainly from achievements and daily logins – so there's a temptation to resort to IAP bundles. Still, the freemium aspect of the game isn't too overbearing and it's possible to play for free. Even having to wait for energy to recharge to play matches (limited to five in a row) isn't too much of a hassle because you

can still play with the other management aspects in the meantime. This includes scouting for players or buying them on the market – an exciting eBay-style timed bidding war against other real managers.

When it comes to match day, the 3D graphics are excellent and sublime, while switching to a 2D screen reveals a host of stats. In both views, five tactical toggles and a defence/attack slider are used to alter how your team plays, which does strike us as being a touch on the basic side. However, tucked away

in the Edit Team menu, we discovered extra tactical options to fine-tune aspects such as positioning, compactness, numbers in attack/defence and whether to use an offside trap; you can also switch formations and select set-piece takers. It all adds up to an in-depth simulation that could well have you hooked for months.

» Price Free + IAP
» Designed for Phone and tablet
» Requires Android 4.2 and up



what we've been playing



The Silent Age
Free + IAPs

The second act of this atmospheric point-and-click adventure is now available and we're still enjoying its unique time-travel mechanic: you often need to switch eras to solve puzzles.



The Firm
£0.84/\$0.99 + IAP

Its simple twitch gameplay keeps luring us back: swipe left/right to sell or buy stocks, depending on charts or reports. It amounts to a fun test of mental agility against the clock.



Recommend a game...

» twitter
@lgrobot



Angry Birds Fight!

Strictly for the birds?



Rather than merrily catapulting your feathered friends through the air, in this spin-off of the insanely popular franchise, you match them into rows. Yes, it's yet another match-three game, and one whose basic gameplay adds nothing new to the genre. And at just 30 seconds long, the stages seem too short. In fact the only USP is that you get to battle random online opponents; while you can't see their actual moves, you may well see the effects, such as



Match the birdie tiles to raise your battle stats and unleash special effects

when you're 'sabotaged' and have to tap crates to break free.

At the end, you get to watch an animated 'battle', based on your comparative stats plus any special skills equipped – annoyingly, it seems you can lose even if you played better in the match. Winning battles can earn you weapons, hats and medals, plus EXP and gold to enhance items. Gems are the main currency – for recharging feathers (needed to battle) and opening bonus chests – and are naturally also available via those IAP.

» Price Free + IAPs
» Designed for Phone and tablet
» Requires Android 4.0 and up



Alpha Squadron 2 A space shooter with stellar presentation



Like its predecessor, this 3D space shooter reminds us of the classic

Star Wars: Rogue Squadron, and it's just as playable. Each campaign mission gives you a series of waypoints to fly your starfighter to, each with an objective – from destroying enemy fighters to escorting transport ships. The aerial combat is great fun, involving classic dogfighting skills as you blast enemies close up with lasers or try to get behind them to lock on with homing missiles. The default tilt controls are responsive, while on-screen buttons handle speed and weapons. You can switch viewpoints between behind-the-ship, cockpit and first-person. The scenery is often spectacular, with



Aerial battles often take place in stunning settings such as this space station

planets and space stations forming an impressive backdrop.

While the first mission is free, an IAP (£3.90/\$4.99) unlocks the first ten-mission campaign.

- » **Price** Free + IAPs
- » **Designed for** Phone and tablet
- » **Requires** Android 2.3 and up



Portal Pinball

A spin-off of a spin-off



Mixing pinball with the Half-Life spin-off Portal might not be the first game mash-up you would think of, but it works and this game does a great

job of capturing the latter's atmosphere, particularly sound-wise. The downside is that you only get a single table to play. This could quickly get boring, but it has been well designed with lots of features to discover.

The main aim is to complete each test chamber by shooting flashing lanes to get Chell to make her way to the exit, not that it's always obvious what you need to do

– and the dot-matrix display at the top left is tiny and near unreadable in the heat of the flipping action. Once you've completed five test chambers and the Ratman mini-table, you unlock the final battle GLaDOS, which involves defeating turrets (via another mini-table) to disable vents, before unleashing a bomb. There are also side objectives and bonus modes to keep you busy. A nice extra little touch is an operator's menu to tweak the table settings.



The rotating pivot cubes will redirect a laser which will then activate a side mode

- » **Price** £1.57/\$1.99
- » **Designed for** Phone and tablet
- » **Requires** Android 4.0 and up



Radical Rappelling

How low can you go?



Halfbrick's radical vertical take on the endless-runner genre sees you abseiling

down cliffs, collecting coins and power-ups while avoiding deadly hazards. The simple control method involves holding the screen to rappel down – otherwise your character (male or female) will stop descending and repeatedly swing out from the rock face with their legs. However, the impetus to keep moving downwards is the threat of being caught from above by a stream of deadly lava.

With careful timing of presses, you soon get the knack of using your sideways movement to leap over obstacles and hit helpful features such as rocket arrows, rings and springs – which can help you access bonus areas. There are also objectives to meet (or skip by spending gems) to earn trophies and level up. The IAPs aren't too obtrusive and there's no limit to how many times you can play, which is just as well because it's very addictive.

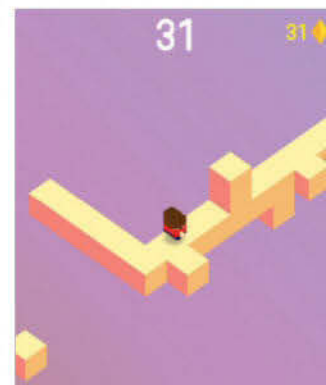
- » **Price** Free + IAP
- » **Designed for** Phone and tablet
- » **Requires** Android 4.1 and up



Hit the breakable rocks while ensuring to avoid spikes as you descend the cliff

quickhits

Games not to miss



The Branch

Free + IAPs

Tap the screen to rotate the walkway to collect gems and prevent your character running into blocks that push him off screen. It's one of those annoying but addictive simple games.



Atlantic Fleet

£7.60/\$9.99

Based on the Battle of the Atlantic in WWII, this turn-based tactical game offers serious strategy with excellent AI and stunning graphics. You can play as the British or German Navy.



Brickies

Free + IAP

This souped-up, cutified Breakout game sees you smashing smiley-face 'blocks'. Fun features include dual bats (top and bottom), timed stages, endless mode and a stack of power-ups.



Final Fantasy Tactics: WotL

£10.49/\$13.99



Square's tactical RPG spin-off offers sophisticated strategy as you control characters in a grid-based battle arena. While a nice conversion, it lacks the original PSP version's multiplayer mode.



Galactus Space Shooter

Free + IAP

This old-fashioned shoot-'em-up takes us back a bit and plays well, too, as your auto-firing ship takes on waves of enemies and big bosses. You can play a couple of levels for free.



Roll'd

Free + IAP

In this innovative endless runner, you control the track rather than the character running along it, aiming to keep it level. A nice idea, although it soon gets frustrating as the slightest error proves deadly.



You Must Build A Boat

A game to float your boat



Like its predecessor, 100000000, this retro-style game combines match-three gameplay with RPG and endless-runner elements, but also adds some extra ingredients.

You're given a small boat and sent on your first mission into a dungeon – a side-scrolling window at the top, with a larger section of tiles beneath. As your little runner encounters obstacles and hazards up top, you quickly need to match three or more relevant tiles to get past. For instance, swords or wands are matched to fight monsters; keys to unlock chests. Take too long or get hit a lot and you're pushed off.

As you achieve objectives, creatures (including some secret ones) are added to the bestiary to enhance your stats. Extra crew are also recruited to your expanding boat, enabling you to upgrade weapons, shield and spells – for gold.

Utterly compulsive from the start, its appeal is enhanced by the cute graphics and chip-tune music.



Match swords or wands to defeat monsters, or use a shield, avoiding all of those that you've already steered



» Price £1.99/\$2.99
» Designed for Phone and tablet
» Requires Android 2.3 and up



Hitman: Sniper

Become a silent and creative killer



The first Hitman game on Android – Hitman GO – was a bit of a letdown for some fans of the long-running stealth series, as it turned out to be a strategic board game. Nor does Hitman: Sniper adopt the traditional gameplay of the series: instead of moving Agent 47 around levels, you take a fixed position on a ledge overlooking a complex of buildings – there's just the one location available.

A tap of the screen takes you to the sniper scope view, which you

can zoom in and out of, while red crosshairs indicate where to find the primary mission target. As you home in on your victim, tapping a lungs icon causes you to hold your breath to help steady your jittery sight. As you'd expect, a headshot causes an instant kill, but there are other, more ingenious ways to cause death by utilising elements of the scenery – for instance, shooting a fuse box on a wet roof to electrocute nearby guards. Sometimes you'll need to kill a witness to prevent them alerting guards, dispose of a body to avoid



If someone discovers a body, top them before they raise the alert

detection, or lure people to certain rooms or alter their movements by causing a distraction. You can even make deaths look accidental, such as causing one guard to fall onto another. Indeed, it seems that Hitman: Sniper is more of a puzzler than a straight shooter.

As you progress through the 150 missions, things get ever more complicated. To help you out, you can upgrade your rifle with in-game cash to unlock extra temporary abilities such as being able to track enemies through walls and making torso hits deadly. Weapon parts intel collected from missions also enables you to build new rifles; some are unlocked at various ranks and leaderboard levels, while three more are available via IAP – which does feel like a bit of a cheat.



Intel gained from completing missions can be used to build new rifles

Outside World

It's not what it looks like



At first glance, this puzzle game bears a remarkable resemblance to

Monument Valley, with its isometric 3D walkways, stairs and towers, but it's actually quite a different beast once you start to play.

Rather than being based on MC Escher-style optical illusions, the gameplay involves the movement of two characters – whom you can switch between at will – working in tandem to negotiate interlinked 3D screens and solve various puzzles to unlock doors. The Kyrsten character will simply walk wherever it is you tap, while her ghostly friend, Jaynie, can

float to otherwise unreachable areas to activate switches and discover visual clues such as secret codes.

While there is no denying that Outside World is rather basic in concept and lacks polish at times – it certainly can't compete with Monument Valley on production values – it definitely has a certain charm of its own and the variety of puzzles aids its longevity, including some riddles to ponder.

» Price £0.77/\$0.99
» Designed for Phone and tablet
» Requires Android 2.3 and up



Jaynie activates a switch, which lowers a clue for Kyrsten to read



» specification

Price **£3.99/\$4.99 + IAP**

Designed for Phone and tablet

Requires Android 4.1 and up

» verdict

Performance

Design

Value

Although it doesn't quite hit the target to be a killer game, it is still a lot of fun



2 hour wonder

Want your money back?
You've got 2 hours to decide!

» 0-40 minutes Shooting people in cold blood is troubling, yet compulsive

» 40-80 minutes All the missions seem to take place in the same location

» 80-120 minutes It's repetitive, but discovering creative kill methods is fun

keep **refund**

Hit the lungs to hold your breath and steady your aim on the target

» like this? try this!



Clear Vision 3

A more standard sniping game that involves wind and distance calculation

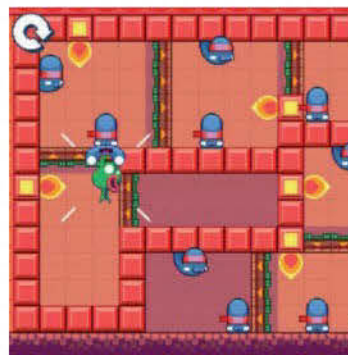
Green Ninja: Year of the Frog

Look before you leap... frog



Funnily enough, we spotted a dead frog on the pavement the other day – it had croaked it. The hero of this action puzzler is considerably more lively, leaping around to kung-fu kick enemies. Control is limited to swiping up, down, left or right, and this forms the basis of the gameplay as you often have to work out in which order to do things to kick all the enemies on the screen without getting killed or stuck. Actually, it's not often that you'll get into a situation where it's impossible to complete a level, but things like one-way gates,

labyrinthine layouts and shattering blocks can cause a headache. While it starts off simple, what really makes the game so enjoyable is the wide range of items and hazards on offer: sticky blocks, springs, switches, mines etc... all combined in a variety of devious ways to test you over 65 levels. The cartoon graphics add to the appeal and while the frequent adverts are annoying, they can be removed with an IAP that will set you back (£2.40/\$3.06).



Those arrows indicate one-way gates, so you need to think about your route

» Price Free + IAP
» Designed for Phone and tablet
» Requires Android 2.3 and up



» like this? try this!



NINJA MINER Explore maze-like levels, using your nifty ninja skills to solve puzzles and collect gems

quickhits

5 top games for...
Petrolheads



Asphalt 8: Airborne Free + IAP

Living up to its name, Gameloft's high-octane racer features insane aerial stunts off ramps, along with realistic crashes and vehicle damage! There's even a live multiplayer mode to take part in.



GT Racing 2 Free + IAP

Gameloft's rival to Real Racing – except with no car repair times/costs – is a decent, realistic simulation with over 71 licensed vehicles and 1,400 events, including classic races, duels, knockouts and overtakes.



Real Racing 3 Free + IAP

This sophisticated sim offers a 22-car grid, 13 real circuits and over 160 customisable vehicles from the likes of Ferrari, Porsche and Lamborghini. The only downside is an overbearing IAP system.



SBK14 Free + IAP

For those who prefer to race on two wheels, this is the best option. Visually stunning, it plays really well and offers nine different control schemes. Extra content can be unlocked via IAP.



Riptide GP2 £1.59/\$1.99 + IAP

If you fancy racing on water for a change, Riptide offers some splashing fun with plenty of depth. There are nine jet-skis to unlock/buy, in addition to a lengthy career mode and four-way online multiplayer.



Android magazine™ BUYER'S GUIDE

Discover the best smartphones, tablets and accessories to buy in our top ten charts



For the most up-to-date reviews, head to www.littlegreenrobot.co.uk
THE LATEST ONLINE INCLUDE... SONY XPERIA Z3+ » HP CHROMEBOOK "14 » ALCATEL ONETOUCH WATCH

TOP 10 SUPER SMARTPHONES THE BEST FLAGSHIP AND MID-RANGE ANDROID PHONES ON THE MARKET

1		Samsung Galaxy S6 Samsung has come out of fighting after the humdrum response to the S5, with this stunning handset made entirely of metal and glass. Samsung has had to sacrifice microSD support and removable battery to make it so thin and light to hold, but it offers a 13MP camera, wireless and superfast charging, improved fingerprint scanner and benchmark-beating processor instead.	£559  See issue 52	
2		LG G4 The LG G4 is a close second for the phone of the year behind the Galaxy S6, with a distinctive leather-back case and superior camera. Its unique Quantum IPS screen will amaze with images that are bright and crisp and offer vivid colours, while its 2TB microSD port offers lots of extra storage.	£479.99  See issue 52	
3		Sony Xperia Z3 Artfully crafted from glass and metal, the Z3 is not just stylish, it's also 100 per cent waterproof. Its 20.7MP camera is one of the most powerful we've seen and the PlayStation Remote Play feature will appeal to gamers. The launch of the Xperia Z3+ is also set to bring down the price of this older model.	£499  See issue 44	
4		HTC ONE M9 We marked the M9 down for only being a very minor update on the M8, but it is undeniably a superb phone. Underneath its elegant silver and gold chrome shell, it houses a superfast Snapdragon 810 processor, 20MP camera, 3GB RAM, 32GB memory and some clever customisation tools.	£579.99  See issue 50	
5		Moto X (2014) The second-gen Moto X remains a contender for best phone, despite launching last year. It offers a stock Android experience with a 13MP camera, 15-minute Turbo charging, but is much cheaper than the Nexus 6, which has the same features. Its other specs are starting to look a bit dated though.	£395  See issue 45	
6		Nexus 6 Google's first phablet, the Nexus 6 is larger than either a Galaxy Note 4 or OnePlus One. This can make it an awkward fit for one-handed use, but the gigantic 5.9-inch QHD display looks fantastic. It also has a super-fast processor and 3GB RAM for zippy use, along with a commendable 13MP camera.	£399.99  See issue 47	
7		LG G3 Though it's been superseded by the G4, the LG G3 continues to impress us with its pin-sharp QHD 5.5-inch screen, laser-focused 13MP camera and lightning-fast processor. However, its faux metal plastic casing is no comparison for the G4's leather back, and its mono speaker is disappointing.	£349.99  See issue 41	
8		HTC One (M8) While the M9 has bumped the M8 down a peg in our chart, it remains a fantastic phone. An all-aluminium design, with a bright 1080p screen and critically-acclaimed dual BoomSound speakers. Not only has its price slashed with the launch of the M9, it can be upgraded to Android 5.0 as well.	£329.99  See issue 37	
9		Samsung Galaxy Note 4 To look at, the Note 4 is a modest update on the Note 3, with a same-size display and continued emphasis on using the S Pen stylus. However, it has been revamped in almost every area. The TouchWiz interface handles better than ever, it has a 16MP camera and has an extra-long battery life.	£549  See issue 45	
10		Honor 6 Plus Quite literally the bigger brother of the Honor 6, this phablet upgrades the display from 5-inches to 5.5-inches, adds a 13MP rear camera, a faster processor, bigger battery and more storage. However, it only runs Android 4.4 out of the box, which is heavily skinned with a rather clunky interface.	£299.99  See issue 53	

In case you missed it... **Festival essentials** Read more in issue 52

Trendz in-ear headphones

» Price £10/\$TBC
 » Website amazon.co.uk

While very cheap, these earbuds don't lose much in terms of quality. They sound a bit tinnier than the others but you don't lose clarity at all. The gold buds are a little garish for us, but the silver ones look a lot sleeker.



KS Hive Buds

» Price £24.99/\$TBC
 » Website kitsound.co.uk

A comfy pair of reasonably priced in-ear headphones with 11mm drivers that create a clear sound. The range isn't spectacular, but as long as you aren't listening to a thumping low bass, you will have a good experience with these.



RHA T10 earphones

» Price £139.95/\$189.95
 » Website rha-audio.com

The RHA T10 have a very premium finish, with stainless steel earphones and customisable earbuds. Overall sound quality and noise-cancelling is top notch, but we found the metal finish makes them quite heavy.



Sennheiser CX 5.00G

» Price £69.99/\$89.95
 » Website maplin.co.uk

The Sennheiser CX 5.00's ergonomic earbud design makes for an incredibly comfortable listening experience. Secure, comfortable and great quality music playback, these are definitely worth the money.



Buyer's Guide

TOP 10 BUDGET BUYS IF YOU'RE SHOPPING FOR A SMARTPHONE ON A SHOESTRING, CHECK OUT THESE LOW-COST MOBILE MUST-HAVES

1		ZTE Blade S6 While its price puts it at the top-end of what we would call a 'budget phone,' the Blade S6 is the best ZTE Blade in years. It runs Android Lollipop, has a 64-bit Snapdragon processor, 2GB RAM and the exact same IMX214 camera as the Sony Xperia Z3 – which costs around three times as much! Its overall iPhone-inspired design is a bit boring, but at 7.7mm, it is a surprisingly slender handset.	From £169.99  See issue 50	
2		Moto G 4G (2015) The third generation of the Moto G 4G, it is the same shape and size of the Moto X (2014), with a 5-inch screen, booming dual speakers and customisable rear case. As well as offering 4G connectivity, it is packing an 8MP rear camera, near stock Android 5.0 and boosted 2390mAh battery.	£149  See issue 51	
3		Moto E (2015) The second-gen Moto E is nipping at the heels of the Moto G 4G for the title of Motorola's ultimate no-strings-attached smartphone. It also offers LTE connectivity and Android Lollipop built-in, with the added promise of all-day battery. But its 5MP camera and mediocre display reflect its budget price.	£109  See issue 54	NEW ENTRY
4		Moto G (2014) If superfast 4G connectivity isn't a priority for you, the Moto G offers many of the same features as the Moto G 4G (2015) but for slightly less money, including the camera, speakers and option to upgrade to Android 5.0. It also includes a Snapdragon 400 quad-core and dual-SIM support.	£149.99  See issue 44	
5		Asus ZenFone 5 While it is one of the most expensive phones in our budget buys chart, the ZenFone 5 offers an awful lot for less than most mid-range phones. A stylish metal design is available in a range of colours, it has a sharp 5-inch screen, powerful Intel Atom processor, and 8MP shooter with a range of modes.	£149.99  See issue 48	
6		Honor 4X The biggest and best of the three Honor phones in this chart, the 5.5-inch Honor 4X has a lot going for it, including a 16MP camera, off-brand octa-core processor, and 4G connectivity. However, you pay for the high specs at a low cost in other ways: it only runs Android 4.4 KitKat and mediocre screen.	£146.49  See issue 53	NEW ENTRY
7		Sony Xperia M2 Aqua Just like Sony's flagship Xperia Z3, this mid-range marvel is waterproof up to at least 1.5 metres. Sony's other top feature is here as well, with an 8MP rear camera and a suite of photography tools. The only downside is that, after you factor in all the preloaded apps, it only has 4GB of storage.	£125  See issue 48	
8		Honor Holly The low-end alternative to the Honor 6, the Holly manages to offer 16GB storage, an 8MP camera, a five-inch HD screen and dual-SIM with only a double-digit price tag. However, you get what you pay for, as the build quality feels quite cheap and it only runs Android 4.4.	£89.99  See issue 50	
9		HTC Desire 510 At 4.7-inches, with a budget price tag and LTE connectivity, this is HTC's answer to the Moto G 4G. However, cost-saving measures such as a 5MP camera and poor screen quality, mean it just can't compete. HTC's Sense 6 UI is still here though, offering one of the best custom interfaces for Android.	£155.99  See issue 44	
10		Honor 3C This frugal 5-inch phablet is a bit behind the times running Android Jellybean and only offering 3G signal and 8GB storage. However, a 2MP front-facing selfie camera, generous 2GB RAM, expandable memory and dual-SIM support help to make this a great phone for first-time users.	£120.39  See issue 49	

In case you missed it... Weather apps Read more in issue 52

Yahoo Weather

» Price Free



Yahoo Weather looks stunning, with background photos to match your current

location and weather condition – and, unlike so many other weather apps, there are no ads to clutter the view. Extra features include heat and wind maps.



AccuWeather

» Price Free



Loaded with detailed information, including various graphs, this is ideal

for serious weather buffs. However, you can hide info you don't need and a MinuteCast option shows a hyperlocal forecast for your location.



1Weather: Widget

Forecast Radar » Price Free + IAPs



One for widget lovers, 1Weather comes with several reconfigurable ones, including three clocks. The main app features a slick interface with the option for live or custom backgrounds. Lots of map layers, too.



Weather Underground

» Price Free+ IAPs



Combining crowdsourced user info with data from over 33,000 weather stations, it delivers accurate, hyperlocal forecasts. The interactive map includes radar.



TOP 10 BEST TABLETS WHETHER YOU'RE LOOKING FOR A SEVEN OR TEN-INCH DISPLAY, THESE ARE THE TOP TABLETS AVAILABLE ON ANDROID

1		Sony Xperia Z4 Tablet Sony's lightest and brightest tablet ever, the Z4 has made us fall back in love with the 10-inch tablet, where the Nexus 10 left us cold. With a clip-on keyboard and Microsoft apps bundled in, it is a top tablet for when you want to set up a mobile office. But all work and no play makes for a dull device, so the Z4 also supports PlayStation Remote Play and has crisp 2K display screen, a Snapdragon 810 processor, and 3GB RAM to ensure it can keep up with console-quality frame rates.	£499  See issue 54	NEW ENTRY
2		Sony Xperia Z3 Tablet Compact If the Xperia Z4 is an iPad killer, the 8-inch Z3 has the iPad mini in its sights. Weighing just 270g, it's slim and stylish like its bigger brother, with 3GB RAM and a Triluminos display to boot. It also integrates with the PS4, so the only real difference between the Z3 Compact and the Z4 is its size and price tag.	£269  See issue 46	
3		Google Nexus 9 A mighty Nvidia Tegra K1 processor and 3GB RAM mean that even running the most graphic-heavy games won't slow this 64-bit tablet down. The built-in BoomSound speakers also offer great sound quality, making Google's new tablet an all-round media consumption device.	£319  See issue 45	
4		Samsung Galaxy Tab S 10.5 Ultra thin and ultra bright, colours look vibrant and details distinct on this powerful Super AMOLED screen. Samsung's iPad slayer also puts many other Android tablets to shame, with a multi-window mode to display several apps at once and octo-core processor ensuring lightning-fast performance.	£429  See issue 43	
5		Sony Xperia Z2 Tablet Arguably one of the most portable 10-inch tablets available, the Xperia Z2 Tablet is waterproof and can support a SIM card for 4G use. It is also surprisingly thin and light to carry, and includes power-saving modes to ensure longer battery life. Reasonably high-spec, it has a whopping 3GB RAM.	£329  See issue 39	
6		Tesco Hudl 2 This sequel to the supermarket chain's own-brand tablet can't compete with premium models, but sets a new benchmark for budget tablets. Upping the display size from 7 to 8.3-inches, the Hudl 2 also runs Android 4.4.2 KitKat and can handle anything you throw at it thanks to an Intel Atom processor.	£99  See issue 44	
7		Samsung Galaxy TabPRO 8.4 Wi-Fi The smallest tablet in Samsung's collection, the TabPRO 8.4 proves that good things do come in small packages. A stunning 359ppi screen puts the Nexus 7 to shame, though we'd prefer higher-quality speakers. However, an 8MP camera and intuitive interface are good compensation.	£199  See issue 38	
8		Vodafone Tab prime 6 Vodafone's 4G tablet is the network's best own-brand device yet, shipping with Android Lollipop built-in, a Snapdragon 410 processor, and 32GB microSD. Obviously it also requires a Vodafone contract, so we recommend buying it outright for £150 and getting the PAYG deal with 6GB data.	£150  See issue 53	
9		Archos 101 Oxygen This wedge-shaped tablet is seemingly tilted to give you a better angle for watching videos, plus a mini-HDMI port to connect it to your TV. But we're not sure why as it has a spacious 10-inch screen of its own, with full HD display and good viewing angles. Speedy ARM Cortex A17 CPU is a bonus though.	£169.99  See issue 38	
10		Amazon Fire HD 6 Despite only having a 6-inch display and a budget price tag, the Fire HD6 is a decent tablet for watching movies and listening to music. However, the inferior forked OS and lack of third-party app support make the Fire HD 6 hard to recommend for regular, let alone heavy-duty use.	£79  See issue 46	

NEVER MISS AN ISSUE OF ANDROID MAGAZINE

For the latest reviews, check out our great subscription offer on **page 26**

SAVE 50%
on a one year deal



DroidSupport

» troubleshooting advice » hints and tips

» email an expert

Got an Android-related problem that you need solving? Let us know!

qa@littlegreenrobot.co.uk

Share your tips & tricks

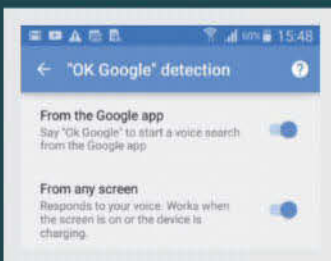
Join us on Facebook and Twitter to share and receive some great tips and advice

» facebook

 /littlegreenrobot
Like us on Facebook and join in our Android community

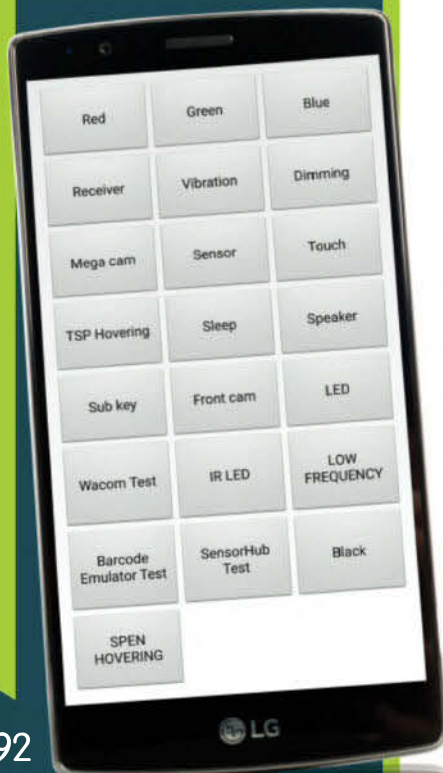
» twitter

 @lgrobot
Follow us on Twitter to send your thoughts and questions



Did you know?

You can set up your device to respond to 'OK Google' from any screen by going to Settings>Controls>Language and Input>Voice Input and then selecting the cog next to Enhanced Google Services. Tap OK Google Detection and then select From Any Screen. It works perfectly.



My accelerometer is no longer working!

“My phone took a slight knock, a very small one I might add, and now the accelerometer is not working at all. No matter what I try the display will not switch when I turn the phone. Do you know if this is a hardware problem?”

Bev Lee

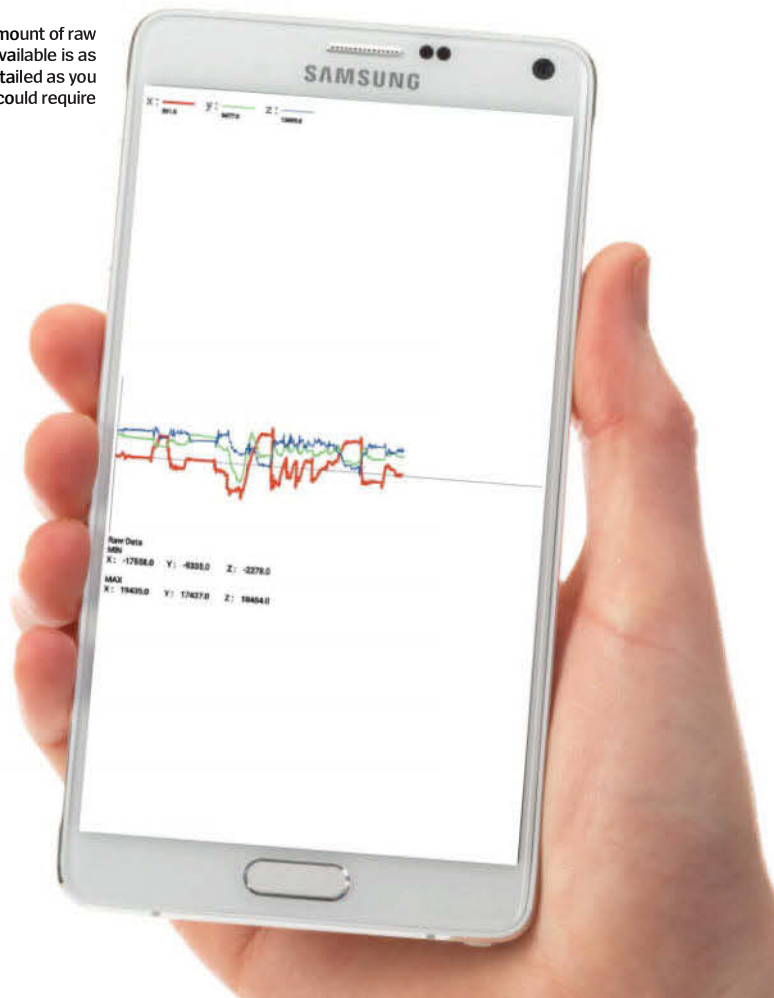
A **Hi Bev.** If we are honest, this does indeed sound like a hardware problem, but it does seem strange if the knock it took really was gentle. It is possible that there is a software issue that is causing this purely by coincidence and that is something we can look at here. The first thing to do is make sure the screen lock is off and then open the Phone app and type in *#0*#. You now need to wait because it will take a few seconds for a screen to appear that gives you access to a variety of hidden settings. When it does finally appear, tap the Sensor icon to see a series of stats relating to the current performance of the accelerometer, gyroscope etc, and if they are working, you should see the numbers continually changing in double-quick time. You can then tap IMAGE TEST at the top and lay the phone on a flat surface. The Angle section will stay static until you move the phone, but if the accelerometer is not working by becoming disconnected in some way, the numbers will not

You can analyse any hardware part of your Android device if need be

change at all. If this happens we would suggest backing up your phone and trying a full reset just in case it is software related, but chances are that it will be a

hardware problem that would require a repair. Android offers all of the information we need to diagnose hardware problems once we know where to look.

The amount of raw data available is as detailed as you could require



Ask your questions

Got a problem with your Android phone or tablet?
Send it to us and we'll find the solution

» facebook

/littlegreenrobot
Get help from our
Facebook community

» email

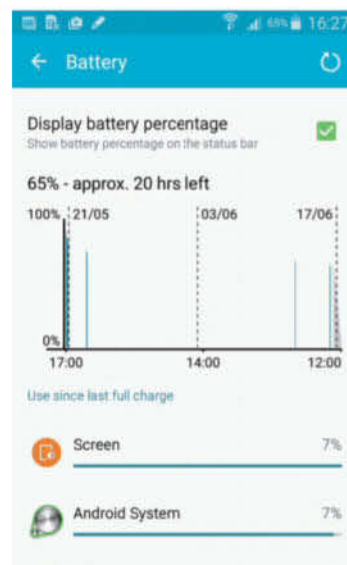
qa@littlegreenrobot.co.uk
Send your questions for our team of
experts to tackle

Why is my battery life so inconsistent?

"Some days I can go to sleep with 60% battery life left on my Galaxy S5, but on others I can be down to 40% by lunchtime. The problem is that I tend to do the same things each day and I can't understand what causes it. Are batteries inconsistent?" **Stephen Johns**

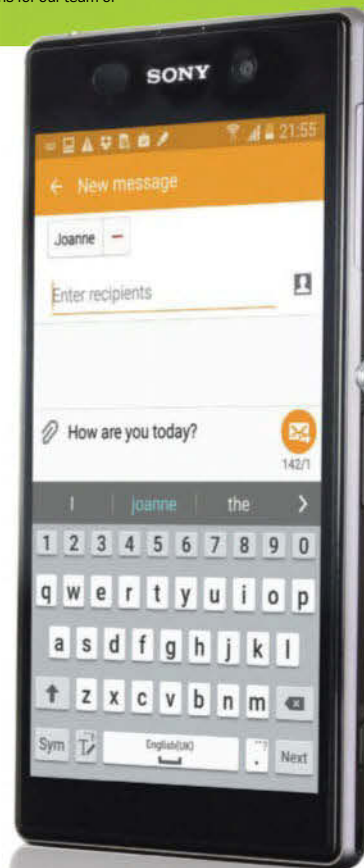
A Hi Stephen. You ask a question that many thousands of phone users have pondered but it is difficult to offer a definitive answer. It may well be that your daily usage follows a consistent pattern, but you have to consider that this is just one part of how a battery is used. Mobile signal alone can account for a large portion of your battery usage, alongside the screen, and networks can vary in terms of how much signal they are pushing out and if low, your phone will need to continually search for the best signal

available. You could be sitting at your desk doing nothing and the phone may be using lots of power just finding a signal. The best advice is to not worry too much unless you are seeing constant poor battery performance. If you want to look more closely at what is causing battery drain, go to Settings>Battery and take some time to look at the graphs and the numbers on offer. You will be shown exactly when the battery is struggling and when not, and from this you can easily deduce what is eating your battery over a day or longer. The good news is



Full details are available for your device
battery performance over time

that because you own a Galaxy S5, if there is anything wrong you can purchase a spare battery cheaply. We suspect, however, that your current battery is working as it should.



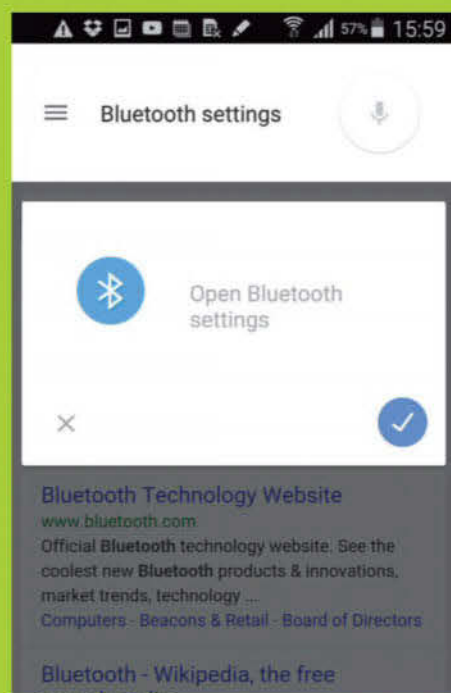
If one process uses a lot of battery, you can see exactly why in Settings

hints & tips

Get more from your Android phone with our handy hints

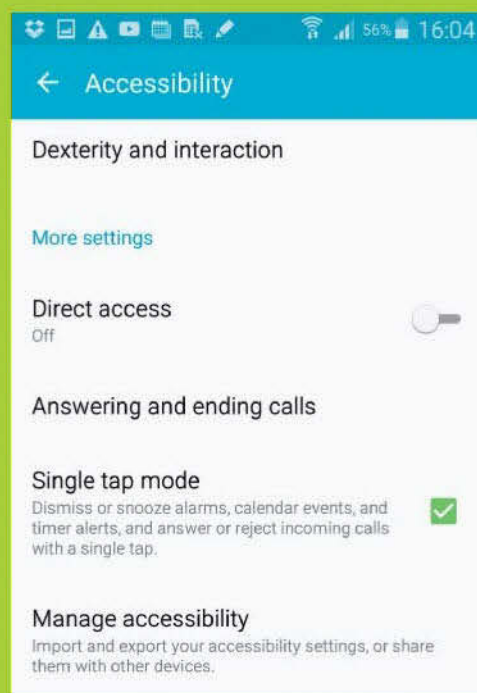
Search within your device

1 When you use the Google Search function, don't think of it as just a tool for online web searches. If, for example, you say 'Bluetooth settings' you will immediately be taken to the settings you need.



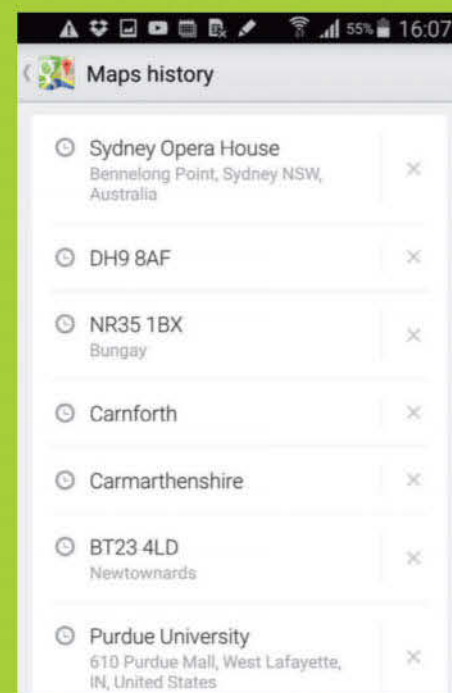
Single tap mode

2 Some accessibility settings work well for every Android user. For example, enabling single tap mode will make rejecting phone calls, dismissing alarms and dealing with timer alerts much easier.



Where have you been?

3 In Google Maps, go to Settings via the menu icon and then select Maps History to see all of the locations you have searched for recently. This makes it much more efficient to revisit places.



My keyboard cannot predict text

All of a sudden the keyboard on my Galaxy Note 3 has lost the ability to predict text. Sometimes the boxes appear above the keyboard, but with nothing in them at all. Any ideas on how I can fix this?

Kevin Mahoob

A **Hi Kevin.** This is not a common problem, but it would be fair to say that the default Samsung keyboard can at times be problematic for some. The best way to deal with an app like this is to go to Settings>Application Manager and then select All. Now scroll down until you see

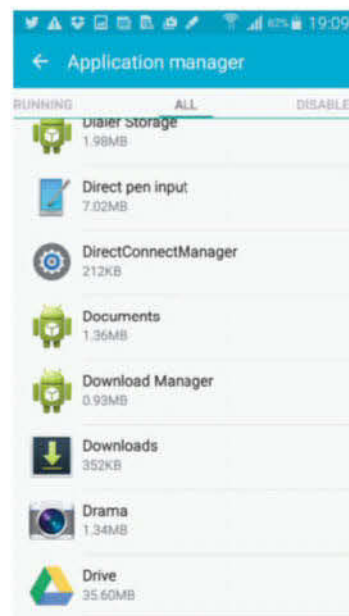
Samsung Keyboard and tap on Clear Data. This should clear out any rogue information that is stopping the predicted words from showing and everything should be working fine again. If this does not work, or you would prefer to find a permanent solution, try an alternative keyboard from Google Play such as SwiftKey. Many of these third-party options include a raft of extra features and more customisation options. Even better, they should work in a familiar way on any device you upgrade to in the future.

I can't open Google Play!

I keep getting a message on my phone saying that com.google.process.gapps is not working. Also, I cannot open Google Play and I am wondering if the two problems are connected in some way. Without Google Play, my phone feels a bit useless and I would like to avoid doing a full reset. Can you help?!

Jessie Morgan

A **Hi Jessie.** The common answer to this problem is to do a full factory reset, but we need not go there just yet because we may have a better solution for you. Go to Settings>Application Manager and tap the All tab. Now find Download Manager, open it and then tap Disable followed by Enable. This should immediately stop the pop-up from appearing and let you open Google Play again. The process it is referring to is quite important and we cannot guarantee that the issue will not reappear in the future so you may want to also check that there are no third-party apps causing the problem. Ultimately you could be looking at a long investigation to understand 'exactly' what



It should be an easy process to keep Google Play working

is causing it if it does keep happening from time to time, but this is where the need for a factory reset will actually be quicker than trying to resolve things manually. With a bit of luck, you will be able to solve the problem with our simple solution and it will not come back again in the future.

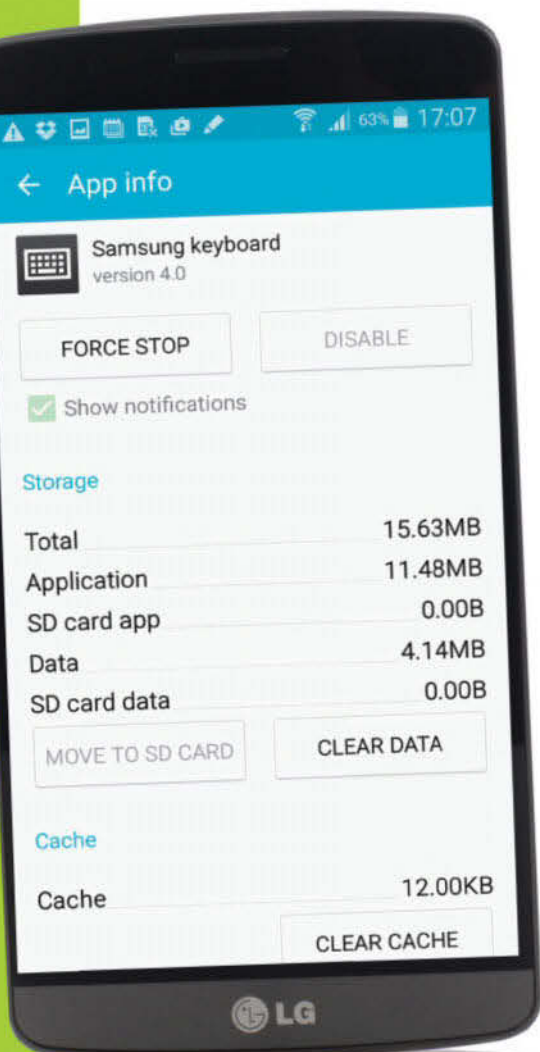
"You should be able to avoid losing most of your files"

How do I convert iOS media?

A I have just bought a new Android phone, having been an iPhone user for many years, and I would like to use all of my old music and films bought through iTunes. Is it possible to convert them and how easy is the transferring process? I would hate to lose a lot of money by having to purchase them all again. **Mickey Shaw**

Hi Mickey. In theory you should be able to avoid losing most of your files, but it does all depend on when it was you bought them and also how many films you have purchased. Older music files were protected by DRM up to 2009 and so any bought before then will likely be protected. They are, however, easy to convert and should pose few problems. The main issue will be with films and TV shows because they are still protected to this day and this is a much more restrictive area. We would suggest to put aside some time to go through the processes we cover in the related step-by-step and to try and complete everything in one go. Once finished, you should be able to enjoy the majority of your historic media on your new Android phone just as you did before.

The majority of your iOS media files can be converted to play happily on Android



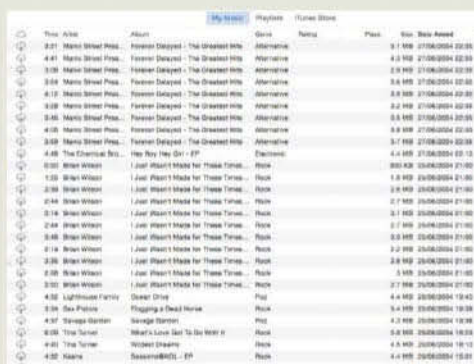
Clearing out data can often solve annoying problems





Did you know?

To include your own files as options for ringtones, notifications and alarms, create folders on your expansion card with these names and move your files to them using a third-party file manager. The sounds will then appear in Settings>Sounds and Notifications.

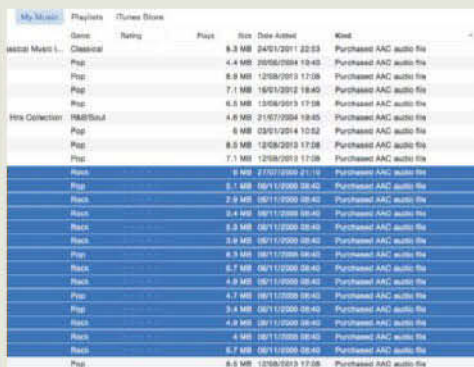
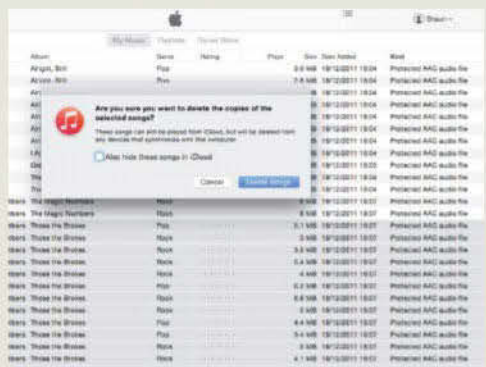


1 Go to iTunes

On your PC or Mac, go to iTunes and then open the Preferences. Now click the Store tab and ensure that 'Show iTunes in the Cloud purchases' is ticked. This simple selection will now enable iTunes to display every music and video purchase you have made using your current Apple ID.

2 Locate your old music

You should now click on the My Music option and then select Songs. All of your purchased tracks will be displayed in date order and you should scroll down to the bottom to look for any tracks purchased before 2009. Note the cloud icon to the left of each track.



3 Delete protected tracks

Sort your tracks by Kind and look for 'Protected AAC audio file'. If some are shown with this tag you can delete them because they will not be able to be easily played on an Android device. Don't worry about deleting any because you will still have access to the tracks in the cloud.

4 Re-download your tracks

The 'deleted' tracks will now be shown with 'Purchased AAC audio file' to the right and a cloud icon to the left. You can now re-download these tracks and they will not be protected anymore. At this point you are able to transfer them to your Android device and play them immediately.



5 Find your home videos

Under Films you should see all of your home videos that you have saved to your computer. You can right-click any file and then click Get Info followed by File in order to see the exact location. This will show you exactly where the majority of your home video files are located.

6 Convert your films

You can now use an app like Handbrake to convert your films to MP4 or .avi for playback on your Android device. Please remember that purchased TV shows and films from iTunes will not convert properly and will remain protected and unplayable. There is no legal way to get around this.

Android magazine

Imagine Publishing Ltd
Richmond House, 33 Richmond Hill
Bournemouth, Dorset, BH2 6EZ
☎ +44 (0) 1202 586200
Web: www.imagine-publishing.co.uk
www.greatdigitalmags.com
www.littlegreenrobot.co.uk

Magazine team

Editor Jack Parsons
jack.parsons@imagine-publishing.co.uk
☎ 01202 586279

Staff Writer Jamie Frier
Senior Designer Adam Markiewicz
Photographer James Sheppard
Senior Art Editor Will Shum
Editor in Chief Dan Hutchinson
Publishing Director Aaron Asadi
Head of Design Ross Andrews

Contributors

Christian Cawley, Joanne Cole, Oliver Hill, Phil King, Shaun McGill, Paul O'Brien, Harry Slater, Jessica Thornsby

Advertising

Digital or printed media packs are available on request.

Head of Sales Hang Deretz

☎ 01202 586442

hang.deretz@imagine-publishing.co.uk

Advertising Manager Alex Carnegie

☎ 01202 586430

alex.carnegie@imagine-publishing.co.uk

FileSilo.co.uk

Assets and resource files for this magazine can be found on this website.

Support filesilohelp@imagine-publishing.co.uk

International

Android Magazine is available for licensing. Contact the International department to discuss partnership opportunities.

Head of International Licensing Cathy Blackman

☎ +44 (0) 1202 586401

licensing@imagine-publishing.co.uk

Subscriptions

For all subscription enquiries

☎ 0844 245 6963 (UK)

☎ +44 (0) 1795 414 972 (Overseas)

Email: android@servicehelpline.co.uk

13 issue subscription (UK) – £51.90 (CC)

13 issue subscription (Europe) – £65

13 issue subscription (ROW) – £75

Circulation

Head of Circulation Darren Pearce

☎ 01202 586200

Production

Production Director Jane Hawkins

☎ 01202 586200

Finance

Finance Director Marco Peroni

Founder

Group Managing Director Damian Butt

Printing & Distribution

Printed by William Gibbons, 26 Planetary Road, Willenhall, West Midlands, WV13 3XT

Distributed in the UK, Eire & the Rest of the World by: Marketforce, Blue Fin Building, 110 Southwark Street, London, SE1 0SU, ☎ 0203 148 3300, www.marketforce.co.uk

Distributed in Australia by: Network Services (a division of Bauer Media Group) Level 21, Civic Tower, 66-68 Goulburn Street, Sydney, New South Wales 2000, Australia
☎ +61 2 8667 5288

Disclaimer

The publisher cannot accept responsibility for any unsolicited material lost or damaged in the post. All text and layout is the copyright of Imagine Publishing Ltd. Nothing in this magazine may be reproduced in whole or part without the written permission of the publisher. All copyrights are recognised and used specifically for the purpose of criticism and review. Although the magazine has endeavoured to ensure all information is correct at time of print, prices and availability may change. This magazine is fully independent and not affiliated in any way with the companies mentioned herein.

If you submit material to Imagine Publishing via post, email, social network or any other means, you automatically grant Imagine Publishing an irrevocable, perpetual, royalty-free license to use the material across its entire portfolio, in print, online and digital, and to deliver the material to existing and future clients, including but not limited to international licensees for reproduction in international, licensed editions of Imagine products. Any material you submit is sent at your risk and, although every care is taken, neither Imagine Publishing nor its employees, agents or subcontractors shall be liable for the loss or damage.

Android is a trademark of Google Inc.



© Imagine Publishing Ltd 2015
ISSN 2047-1580



Check our website daily for even more tips & tricks

» www.littlegreenrobot.co.uk

YOUR FREE RESOURCES

Log in to www.filesilo.co.uk/android and download the latest smartphone software, video tutorials and free wallpapers

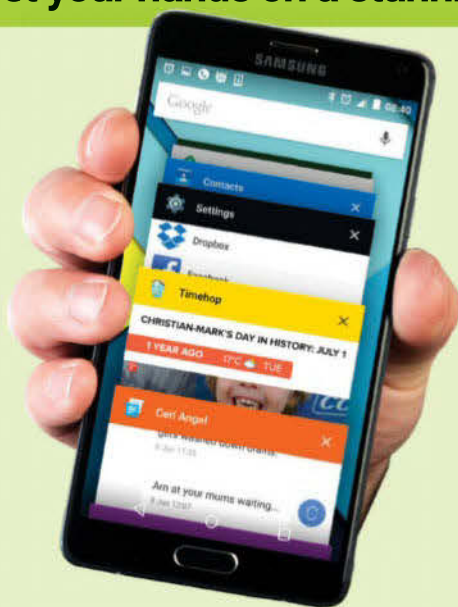


10 free wallpapers **Get your hands on a stunning collection of designs**



Unboxing videos
Hands-on with the latest devices

TOTAL NUMBER OF
FREE RESOURCES **15**



Expert video guides
Walking you through new features

YOUR BONUS RESOURCES



ON OUR BRAND-NEW
FILESILO THIS ISSUE
YOU WILL FIND AN
UNMISSABLE
COLLECTION OF
ANDROID RESOURCES

- » Exclusive hands-on videos of the latest hardware
- » Videos to guide you through some of this issue's tutorials
- » 5 Chromebook wallpapers
- » 5 smartphone wallpapers

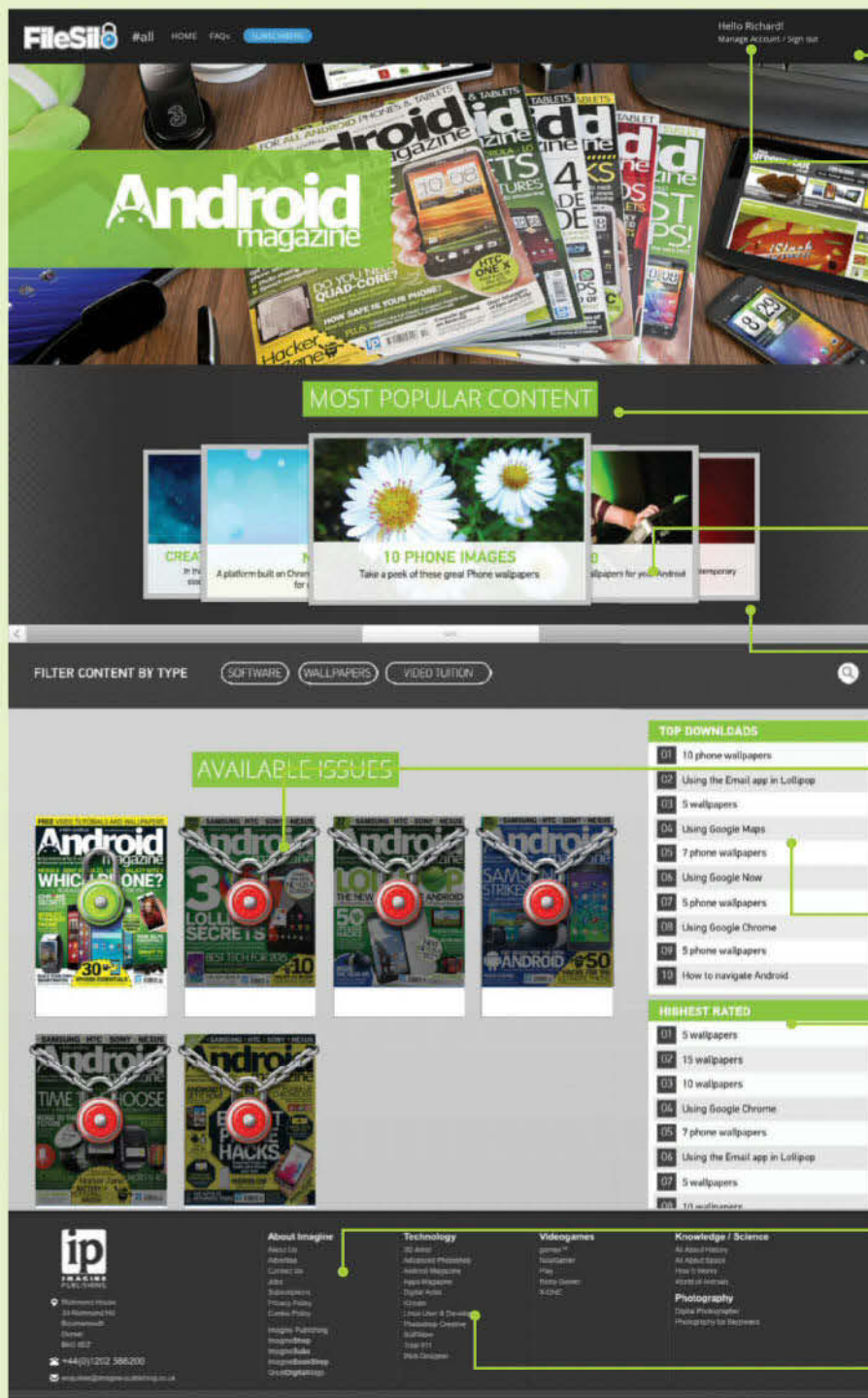
FileSilo

www.filesilo.co.uk/android

» FILESILLO – THE HOME OF PRO RESOURCES

DISCOVER YOUR FREE ONLINE ASSETS

- A rapidly growing library
- Updated continually with cool resources
- Lets you keep your downloads organised
- Browse and access your content from anywhere
- No more torn disc pages to ruin your magazines
- No more broken discs
- Print subscribers get all the content
- Digital magazine owners get all the content too!
- Each issue's content is free with your magazine
- Secure online access to your free resources



This is the new FileSilo site that replaces your disc. You'll find it by visiting the link on the following page

The first time you use FileSilo you'll need to register. After that, you can use the email address and password you provided to log in

The most popular downloads are shown in the carousel here, so check out what your fellow **Android Magazine** readers are enjoying!

If you're looking for a particular type of content like brushes or fonts, use the filters here to refine your search

Can't find the resource you're looking for in these filters? Click on More Options to specify exactly what kind of resource you want

Green open padlocks show the issues you have accessed. Red closed padlocks indicate the ones you need to buy or unlock

Top Downloads are listed here, so you can get an instant look at the most popular downloaded content

Check out the Highest Rated list to see the resources that other readers have voted for as the best!

Find out more about our online stores, plus useful FAQs like our cookie and privacy policies and contact details

Discover our amazing sister magazines and the wealth of content and information that they provide

Resources

How to use

Everything you need to know about accessing your new digital repository



To access FileSilo, please visit www.filesilo.co.uk/android

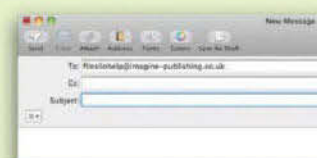
01 Follow the instructions on screen to create an account with our secure FileSilo system. Log in and unlock the issue by answering a simple question about the magazine. You can access the content for free with your issue.



02 If you're a print subscriber, unlock all the content by entering your unique Web ID. Your Web ID is the eight-digit alphanumeric code that is printed above your address details on the mailing label of your subscription copies. It can also be found on any renewal letters.

03 You can access FileSilo on any computer, tablet or smartphone device using any popular browser (such as Chrome, Firefox or Safari). However, we recommend that you use a computer to download content, as you may not be able to download files to your phone or tablet.

04 If you have any problems with accessing content on FileSilo, or with the registration process, take a look at the FAQs online or email filesilohelp@imagine-publishing.co.uk.



GET IN TOUCH WITH ANDROID MAGAZINE

Head over to www.littlegreenrobot.co.uk for all the hottest news and reviews, quick tips and handy tutorials and much more. We're on Facebook and Twitter too – follow @lgrobot and like us at www.facebook.com/littlegreenrobot to find amazing competitions and giveaways for apps and hardware. We'd love to hear from you – don't be shy!



www.littlegreenrobot.co.uk

Issue 55 of Android Magazine is on sale **03 September 2015** from GreatDigitalMags.com



You know the moment is
gone in a split second.

We know how to catch it
at 60 frames per second.



You're in dauntless pursuit of that poise,
sheer speed and elemental grace. So you
depend on professional equipment.

Make no mistake, you want a top-end
action camcorder with sky-high
definition, and Wi-Fi to stream it. A full
160° wide angle lens, and breathtaking
slow motion. That's where the ION Air Pro
3 Wi-Fi lets you capture every frame of
the drama, before the chance has flown.

Currys  PCWorld

WE START WITH YOU

SAMSUNG



The award winning
Samsung NX1
with UHD 4K video.



- Redefine image quality with the 28MP BSI APS-C CMOS sensor
- Hybrid AF with 205 phase detection, 209 contrast detection and 153 cross-type sensor points
- Fast and precise continuous shooting up to 15fps at full resolution
- Capture fast-moving action with exquisite clarity at 1/8000 sec. shutter speed
- Breathtaking 4K UHD video recording in HEVC (H.265) format
- Lifelike Electronic Viewfinder (EVF) with an ultrafast response time of 0.005 seconds
- Highly durable dust and splash resistant magnesium alloy body

Available at **John Lewis**

FIND YOUR SIGNATURE

Samsung SMART CAMERA **NX1**